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S. HRG. 99-246, PT. XV

TAX REFORM PROPOSALS—XV

ORIGINAL

HEARING

BEFORE THE

COMMITTEE ON FINANCE
UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

JULY 17, 1985

(Nation's Energy Industry)

Printed for the use of the Committee on Finance

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CONTENTS

WITNESSES

Page
American Petroleum Institute, Charles J. Di Bona 153
American Wind Energy Association, Angus Duncan 325
Di Bona, Charles J., president, American Petroleum Institute 153
Duncan, Angus, American Wind Energy Association 325
Durand, Francis L., for Texas Independent Producers & Royalty Owners Association 399
Goodrich, Henry, on behalf of the Louisiana Association of Independent Producers & Royalty Owners 379
Gorin, David, executive vice president, Solar Energy Industries Association 256
Hobson, Tina, executive director, Solar Lobby and the Center for Renewable Resources 272
Hoglund, Forrest, president and chief executive officer, Texas Gas & Oil Corp 389
Independent Petroleum Association of America, Jon Rex Jones 199
Jansma, Sidney, on behalf of Rocky Mountain Oil & Gas Association 418
Johnston, Hon. J. Bennett, U.S. Senator, Louisiana 1
Jones, Jon Rex, president, Independent Petroleum Association of America 199
Louisiana Association of Independent Producers & Royalty Owners, Henry Goodrich 379
Nickles, Hon. Don, U.S. Senator, Oklahoma 11
Renewable Fuel Association, by Eric Vaughan 340
Rocky Mountain Oil & Gas Association, Sidney Jansma 418
Solar Energy Industries Association, David Gorin 256
Texas Independent Producers & Royalty Owners Association, Francis L. Durand 399
Vaughan, Eric, president and chief executive officer, Renewable Fuels Association 340

ADDITIONAL INFORMATION

Press release announcing hearing 01
Prepared statement of:
    Senator J. Bennett Johnston 5
    U.S. Senator Don Nickles, Oklahoma 12
    E.L. Bud Stewart, Jr., Energy Consumers & Producers Association 84
    Governor George Nigh, Oklahoma 31
    The RAM Group, Ltd 36
    The Charles Machine Works, Inc., by Phil E. Albertson 58
    Harry J. Schafer, Jr., NARO vice president 62
    Governmental Refuse Collection & Disposal Association 67
    Oklahoma Independent Petroleum Association 72
    J.D. Fleming for Oklahoma Farmers Union 79
    Terry Shinn, president, Oklahoma Mineral Owners Association, Inc 81
    Executive Director Jim Stafford, National Association of Royalty Owners, Inc 84
Study prepared for the Interstate Oil Compact Commission 99
Prepared statement of:
    U.S. Senator David L. Boren, Oklahoma 145
    American Petroleum Institute 156
    Independent Petroleum Association of America, Jon Rex Jones 201
    David Gorin representing Solar Energy Industries Association 259
    Solar Lobby, Tina C. Hobson 277
Joint statement on administration tax plan 285

Page

Prepared statement of

- Robert P. Kennel, corporate vice president, Ultrasystems, Inc 290
- Bennett Miller, chairman, National Wood Energy Association 298
- Mark J. Riedy, counsel to A.O. Smith Harvestore Products, Inc 311
- Angus Duncan, American Wind Energy Association 327
- Eric Vaughan, president, Renewable Fuels Association 342
  - Ethanol: National Security Implications 361
  - Report by GAO 362
  - Renewable fuels 371
- Henry Goodrich on behalf of the Louisiana Association of Independent Producers & Royalty Owners 381
- Forrest E. Hoglund, president and chief executive officer, Texas Oil & Gas Corp 391
- Francis L. Durand for Texas Independent Producers & Royalty Owners Association 401
- S.J. Jansma, Jr., on behalf of Rocky Mountain Oil & Gas Association 420

COMMUNICATIONS

- Statement of Congressman Glenn English 425
- The Appalachian Producer Coalition 427
- Bacardi Corporation by Mark J. Riedy, Esq 435
- Independent Petroleum Association of Mountain States 451
- International Association of Drilling Contractors 458
- Thomas W. Allen, financial planner and investment broker 474
- Raymond Wilcox, member of board of governors, National Association of Royalty Owners, Inc 476
- National Hydropower Association 480
- Comments of the National Stripper Well Association 490
- Interstate Oil Compact Commission 492
- Ohio Oil & Gas Association 494
- Panhandle Producers & Royalty Owners Association 499
- Pennsylvania Oil & Gas Association 505

TAX REFORM PROPOSALS—XV

WEDNESDAY, JULY 17, 1985

U.S. Senate,
Committee on Finance,
Washington, DC.

The committee met, pursuant to notice, at 10 a.m., in room SD-215, Dirksen Senate Office Building, Hon. Bob Packwood (chairman) presiding.

Present: Senators Packwood, Wallop, Durenberger, Symms, Grassley, Long, Bentsen, Matsunaga, Moynihan, Baucus, Boren, and Bradley.

[The press release announcing the hearing follows:]

[Press release of June 25, 1985]

Tax Reform Hearings in Finance Committee To Continue in July

Examination of President Ronald Reagan's tax reform proposal will continue in July with a series of hearings before the Senate Committee on Finance, Chairman Bob Packwood (R-Oregon), said today.

"We made a good start on the hearing portion of this long process toward overhaul of the Internal Revenue Code during June," Senator Packwood said. "The hearings we have scheduled for July will take us further toward our goal of having a bill to the President by Christmas."

The hearing announced today by Senator Packwood includes:

On Wednesday, July 17, the Committee is to hear testimony from public witnesses on the impact tax reform is expected to have on the nation's energy industry.

The **Chairman**. The committee will come to order.

Today we are hearing from those segments of the economy involved with energy, principally the oil and gas industry, and then the renewable energy sources. This is one in a series of continuing hearings. This is our 15th day of hearings. We have 15 more days scheduled, and I think probably at the end of that we will have to add a few other days, depending upon what the House does.

We are delighted to have with us as our first witness today the junior Senator from the State of Louisiana, J. Bennett Johnston. Bennett, it is good to have you with us.

STATEMENT OF HON. J. BENNETT JOHNSTON, A U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator **Johnston**. Thank you very much, Mr. Chairman.

Mr. Chairman, as we sit here today the unemployment rate in Louisiana is 11.2 percent. That was measured in May, and since that time I am sure it has gone up, because since that time many plant closings have been announced.

The reason for that, Mr. Chairman, is that oil and gas and petrochemical production has gone down; thus decreasing the number of jobs in that area. As a matter of fact, there are some areas of Louisiana where the unemployment rate is much above 11 percent. Lake Charles, for example, exceeds 14 percent in unemployment and that is because Lake Charles is a petrochemical center.

Throughout the State chemical manufacturing plants and refineries are laying off employees or completely shutting down. For example, at one time Ethyl Corp. was the largest industrial employer in the Baton Rouge area. Earlier this month it announced that it was completely shutting down its chemical manufacturing plant and thus putting out of work 700 employees. In March, American Hoechst laid off 150 workers, and during the past 2 years Kaiser has reduced its work force from 5,000 to 1,700. Kaiser, of course, produces aluminum, but has experienced difficulty because the price of natural gas has gone up so much. The 1,700 employees who left at Kaiser gave up $4.50 in salary and benefits to retain their jobs and we hope they will be able to retain them for a long time, but that, of course, is subject to question.

Mr. Chairman, 62 of Louisiana's 64 parishes or counties are involved in oil and gas production. In January 1985, 81,000 individuals were involved directly in oil and gas extraction activity. By May, this number had decreased by 79,200. That represents a 2.2-percent decrease in just 5 months. Activity of this nature is occurring in every sector of my State's energy production industry and I frankly don't know how much more our State can take. Neighboring States are in bad shape as well. For example, I know from conversations just the night before last with Senator Boren that Oklahoma is hurting very badly. However, I will let those States speak for themselves.

This bleak economic activity is directly caused by the recession in the oil and gas industry. In the first week of June, only 1,821, or 40 percent of the rotary drilling rigs were operating in the United States. The other 60 percent of those rigs are idle. In Louisiana, the oil and gas industry is the backbone of the State's economy; it pays more than $3 billion in earnings to 120,000 workers—those are direct workers; the number of indirect workers are even greater than that. In fiscal year 1984, severance tax, bonuses, royalties, and rental payments directly pumped $1.3 billion into the State's treasury. Of course, that figure is dropping rapidly and does not account for income that is derived from businesses that provide services to the oil and gas industry; for example, the mud business, drilling bits, a myriad of industries that furnish services to oil and gas.

Taken together, it is clear that Louisiana's idle drilling rigs translate into unemployment and State revenue loss of a horrendous recessionary dimension.

Mr. Chairman, the condition of the world oil market is partially responsible for the poor condition of our domestic oil and gas industry. This market is suffering a production surplus which is causing prices to fall. On a world basis, the surplus was caused by oil prices decreasing from a high of $34 a barrel in 1982 to $26 a barrel in June 1985. Just last week Mexico announced that it was further reducing the price of its oil by approximately $1.25 per barrel, and experts predict that within months world oil prices could decline to $20 per barrel. I have even read some estimates that prices could go as low as $15 per barrel. I hope not.

While declining prices fare well for the consumer, they create absolute havoc for the domestic energy production industry.

Declining oil prices not only affect the health of the oil and gas production industry, but also severely affect downstream activities, such as refining and marketing, as well as business that provide support services to the oil and gas industry. In 1984, Louisiana's operating refining capacity was below the national average and it does not appear that this trend will improve in 1985.

Despite a recent $1 billion tax increase, the State's fiscal year 1986 deficit is expected to reach $200 million, and that is based on high oil price projections.

And, Mr. Chairman, if you will just consider the meaning of that—a billion dollar tax increase, and you are still $200 million in the red—you can see what a terrible shape we are in in Louisiana.

It is generally believed that each dollar decline in crude oil prices costs Louisiana $32 million yearly in direct revenues; that is, royalties and severance taxes. Consequently, Mr. Chairman, I have a direct, and I confess, parochial interest in any legislation affecting oil and gas. Any further blow to the oil and gas industry would move that industry from the infirmary and into the morgue.

In this regard, Mr. Chairman, I was deeply upset when the Treasury first proposed eliminating all of the oil and gas tax incentive provisions. Clearly, gains that had been made and Treasury II is a less unsavory proposal; however, it is not perfect, and I fear that its adoption will add one more nail to the coffin of an already beleaguered industry. In Louisiana, it will result in less exploration and production, more unemployment, and a reduction in oil and gas reserves.

The most onerous provision of Treasury II is the proposal to repeal percentage depletion. Depletion is to natural resources what depreciation is to equipment. It is a means of recognizing consumption of a finite asset. Percentage depletion was adopted in 1926 to encourage this drilling, and throughout the subsequent 60 years it has been an integral part of our industry.

Mr. Chairman, the Interstate Oil Compact Commission recently completed a study which shows that between 1986 and 1991 repeal of percentage depletion will have an enormous impact on the national and Louisiana energy production industries. Some of the IOCC findings are very frightening to Louisiana. The average impact between 1986 and 1991, according to IOCC, would be as follows: The reduction in annual drilling expenditures on a national level would be $932 million a year. In Louisiana, this would result in a diminution of $243 million per year. Reduction in jobs would be 46,500 annually, nationally, and 12,150 direct jobs in Louisiana. The number of wells drilled would be 2,500 less nationally; 654 in Louisiana. Reduction of drilling rigs in operation would be 90 nationally; 24 less in Louisiana. Reduction in oil and gas production would be 41,000 barrels per day nationally and 10,700 BOE in Louisiana. Oil and gas revenues would decrease $294 million nationally; $76 million in Louisiana. Severance taxes collected would cost Louisiana $10 million a year. Oil and gas reserves would decrease $120 million BOE per year in Louisiana.

Mr. Chairman, my State, as I say, is in very difficult shape economically, and it would be very difficult for us to suffer any further diminution in jobs and in income. But my plea, Mr. Chairman, is not only because of Louisiana; it is also because of the national situation.

It is quite true that the price of crude oil is down; that there is a temporary surplus in crude oil; and that there are adequate supplies worldwide to receive this crude oil. But anyone who thinks that that surplus is going to be permanent, or indeed that it is going to be assured even through the 1980's, I think is being overly hopeful.

The figures from the Energy Information Administration of this administration would indicate that the number of wells and the amount of reserves by the year 1990 will be drastically reduced, and that the price of oil will be up by 50 percent by the year 1990.

Mr. Chairman, it seems to me that it is very important that we preserve a domestic oil industry, and Treasury II would be the first step toward dismantling the domestic oil industry and not having it available when we really need it. Thank you very much, Mr. Chairman.

The **Chairman**. Thank you.

Now we will hear from the junior Senator from Oklahoma, Senator Nickles.

[The prepared statement of Senator Johnston follows:]

STATEMENT OF SENATOR J. BENNETT JOHNSTON
ON THE IMPACT OF TAX REFORM
ON THE OIL AND GAS PRODUCTION INDUSTRY
JULY 17, 1985

Mr. Chairman, Louisiana's unemployment rate is 11.2 percent and rising. This rate is 4 percent higher than the national average; and, in sections of the state that are most directly involved with oil and gas and petrochemical production, the rate is even higher. For example, the chemical industry is the prime employer in Lake Charles where unemployment exceeds 14 percent.

Throughout the state, chemical manufacturing plants and refineries are laying off employees or completely shutting down. For example, at one time Ethyl Corporation was the largest industrial employer in the Baton Rouge area. Earlier this month it announced that it was completely shutting down its chemical manufacturing plant and thus putting 700 people out of work. In March, American Hoechst laid off 150 workers and, during the past two years Kaiser has reduced its work force from 5,000 to 1,700. The 1,700 employees who are left gave up $4.50 in salary and benefits to retain their jobs.

Mr. Chairman, 62 of Louisiana's 64 parishes are involved in oil and gas production. In January 1985, 81,000 individuals were involved in oil and gas extraction activity. By May, this number has decreased to 79,200. That represents a 2.2 percent decrease in just five months. Activity of this nature is occurring in every sector of my state's energy production industry and I do not know how much more we can take. Neighboring states are also in bad shape, but I will let them speak for themselves.

This bleak economic condition is directly caused by the recession in the oil and gas industry. For example, in the first week of June, only 1,821, or 40 percent of rotary drilling rigs were operating in the United States. The other 60 percent are idle. In Louisiana, the oil and gas industry is the backbone of the State's economy; it pays out more than $3 billion in earnings to 120,000 workers. In FY84, severance tax collections exceeded $800 million; and bonuses, royalties, and rental payments totaled $500 million. Thus you can see that this industry directly pumps more than $1.3 billion annually into the State's treasury; and these figures do not even begin to account for income that is derived from businesses that provide support services to the oil and gas industry. Taken together, it is clear that in Louisiana idle drilling rigs translate into unemployment and State revenue loss.

Mr. Chairman, the condition of the world oil market is partially responsible for the poor condition of our domestic oil and gas industry. This market is suffering a production surplus which is causing prices to fall. On a world basis, the surplus has caused oil prices to decrease from a high of $34 per barrel in 1982 to $26 per barrel in June 1985. Just last week Mexico announced that it was further reducing the price of its oil by approximately $1.25 per barrel and experts predict that within months world oil prices could decline to $20 per barrel. While declining prices fare well for the consumer, they create havoc for the domestic energy production industry.

Declining oil prices not only affect the health of the oil and gas production industry, but also severely affect downstream activities, such as refining and marketing, as well as businesses that provide support services to the oil and gas industry. In 1984, Louisiana's operating refining capacity was below the national average and it does not appear that this trend will improve in 1985.

Despite a recent $1 billion tax increase, the state's FY86 deficit is expected to reach $200 million, and that is based on a high oil price projection. It is generally believed that each dollar decline in crude oil prices costs Louisiana $32 million yearly in direct revenues; i.e., royalties and severance taxes.

Consequently, I have a direct and parochial interest in any legislation affecting oil and gas. Any further blow to the oil and gas industry would move it from the infirmary to the morgue.

In this regard, Mr. Chairman, I was deeply upset when Treasury I proposed eliminating virtually all of the oil and gas tax provisions. Clearly gains have been made and Treasury II is a more appealing proposal; however, it is not perfect, and, I fear that its adoption will add one more nail to the coffin of an already beleaguered industry. In Louisiana, it will result in less exploration and production, loss of employment and a reduction to our oil and gas reserves.

Mr. Chairman, the most onerous energy related provision of Treasury II is the proposal to repeal percentage depletion. Depletion is to natural resources what depreciation is to equipment. It is a means of recognizing consumption of a finite asset. Percentage depletion, was adopted in 1926 to further encourage the search for oil and, throughout the subsequent 60 years, it has become an integral part of the oil and gas industry. Today it is only available to independent producers and royalty owners and is used by them to entice outside capital to an inherently risky investment. With the current industry recession, it is an essential component of the industry's survival.

Mr. Chairman, the Interstate Oil Compact recently completed a study which shows that between 1986 and 1991 repeal of percentage depletion will have an enormous impact on the national and Louisiana energy production industries. I would like to share with you some of the IOCC's findings.

Average Impact 1986-1991	National	Louisiana
Reduction in annual drilling expenditures	$932 million/year	$243 million/year
Reduction in jobs	46,500/year	12,150/year
Reduction in number of wells drilled	2,500/year	654/year
Reduction in drilling rigs in operation	90/year	24/year
Reduction in oil and gas production	41,000 BOE per day	10,700 BOE per day
Reduction in annual oil and gas revenues	$294 million/year	$76 million/year
Reduction in severance tax payments	$24 million/year	$10 million/year
Reduction in oil and gas reserves added[1]	465 million BOE	121 million BOE

[1] Reserves are cumulative 1986-1991. All other numbers are averages per year.

Mr. Chairman, as you can see, repeal of percentage depletion will result in roughly 12,000 Louisianians losing their job each year for the period 1986 - 1991. That represents an annual decline of 10 percent of all individuals who are employed by the State's oil and gas production industry.

Repeal of percentage depletion will also decrease the State's severance tax collections by an average of $10 million per year for the same period. That represents an annual decrease of 12.5 percent. My state's economy simply cannot sustain losses of this magnitude.

Mr. Chairman, the findings of the IOCC study also indicate that percentage depletion is an efficient and cost effective incentive to encourage energy production. This is especially evident when you compare the cost of the current SPRO program with the revenue that will be raised should percentage depletion be repealed. The IOCC study indicates that by repealing percentage depletion we can expect our reserves to be reduced by 465 million BOE during the 1986 to 1991 period. By foregoing this drilling, the Treasury expects to collect an additional $4.2 billion in tax revenues. However, the reserve's loss exceed the 451 billion BOE stored in the SPRO at a cost to the Treasury of $14.5 billion. Therefore, it appears that the Federal government could have saved $10.3 billion by doing nothing.

Mr. Chairman, as I mentioned earlier, oil and gas production is an inherently risky investment. This risk is real and is supported by statistics. 70 percent of all wells and 21 percent of all development wells are dry holes. In 1983, the direct cost of these wells amounted to $7.75 billion; or, 31 percent of total U.S. drilling and well equipment expenditures. It has been suggested that without tax incentives, the increased risk could be recouped by increased wellhead prices. However, given our world oil glut, it is unlikely that oil prices will adequately compensate investors for the risk factor of their investment.

Of equal importance, Mr. Chairman, is the fact that under current law percentage depletion is only available to independent producers. Therefore, repeal of this provision will disproportionately affect one of the most important sectors of the oil and gas production industry. The importance of independents to the industry cannot be overstated. Historically, independents have accounted for 90 percent of wildcat drilling and 85 percent of all domestic drilling, both onshore and offshore. Independents find more than 80 percent of significant new discoveries and have accounted for 56 percent of new reserves found. Without the contributions of independents, domestic production today would be about 1.1 million barrels per day below the 1979 production rate. Recent reports indicate that under Treasury II independents would see their profitability decline an equivalent of $2 to $3 barrel of oil for onshore and offshore drilling projects. This would translate into a decline in production of about 130,000 barrels a day by 1990. It is simply too high a price to pay for tax simplification.

Finally, Mr. Chairman, I would like to remind the Committee that a viable U.S. petroleum industry is an essential component of national security. One need only recall the energy crises of the 1970's to realize the importance of maintaining a workable energy production industry. I hope that we have learned our lesson; and will not do anything to increase the risk that our nation will once again be hostage to OPEC for our energy requirements.

Mr. Chairman, I sincerely question the wisdom of repealing percentage depletion and urge the committee to reject this proposal. I will be pleased to answer any questions you may have.

STATEMENT OF HON. DON NICKLES, A U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator NICKLES. Thank you, Mr. Chairman. I have a four-page statement, and I will submit it to you and summarize my comments. I have a statement by Jim Stafford, who is the executive director of National Realty Owners Association. He was to testify today, but I would like to submit his statement. Also a short statement by Bud Stewart, representing the Energy Consumers and Producers Association, as well as a three-page statement of Mr. Phil Albertson from Ditch Witch Corp. as well.

The CHAIRMAN. They will all be included with your statement.

[The prepared statements of Senator Nickles, Jim Stafford, and Bud Stewart follow:]

U.S. SENATOR
Don Nickles
OKLAHOMA

FOR IMMEDIATE RELEASE

CONTACT PAUL LEE
202/224-5754

Statement of Senator Don Nickles
Senate Committee on Finance
The Impact of Tax Reform on the National Energy Industry
July 17, 1985

Mr. Chairman and Members of the Committee:

The tax treatment of oil and gas operations is a fundamental provision of our national tax policy which Congress has recognized for more than half a century. The President also recognized the critical importance of energy security when he made the decision to retain the present law treatment of intangible drilling and development costs.

However, there remains significant changes in the plan which will adversely impact the nation's domestic energy industry--although you would never know this by listening to the majority of congressional rhetoric. Frankly, I'm getting tired of the demagoguery from many in Congress against the energy industry. I guess it is good politics back home to slam "big oil", but it is absolutely wrong not to tell the whole truth.

The truth is that the oil and gas industry is the most heavily taxed industry in the nation. And while many in Congress criticize what they call the "preferential" treatment of the energy industry, the facts reveal just the opposite.

According to the Joint Committee on Taxation in its study of 1983 effective corporate tax rates, the petroleum industry had an effective tax rate of 21.3 percent. The average for all industries was 16.7 percent.

These figures do not even account for the windfall profit tax which is paid only on crude oil production. These tax payments, totalling $12.2 billion in

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1983, increased their tax rate to nearly 39 percent. No other industry pays a windfall profit tax, and I don't think any member of the senate would allow a windfall profit tax to be imposed on their state's industries.

Also, in the Joint Tax Committee study, of the 28 industry groups represented, petroleum accounted for 27.3 percent of the total current U.S. tax expense. This certainly does not represent a favored industry.

On top of excessively high federal taxes, the petroleum industry also pays severance and production taxes on the state level. These, too, are unique to the industry. In total, 28 states collected $6.6 billion in 1984. This is a sharp increase from $2.5 billion collected in 1979.

The Administration has already proposed a significant change in oil and gas tax laws which would be very detrimental to the industry. I would like to note a few of those changes:

--phase-out of percentage depletion for independent producers, except for stripper-well production;

--phase-out of percentage depletion for all royalty owners;

--restriction in the definition of a stripper-well property;

--greater exposure of income to the alternative minimum tax; and,

--longer depreciation periods for tangible property.

These changes would have a significant effect on the ability of the domestic industry to produce. Already less than half of the drilling rigs that were in use three years ago are in use today. Any further tax burden will force many producers to close shop and the United States will be forced to rely more heavily on imports. The last thing we need to do is spend more money on imports.

According to the American Petroleum Institute, the November Treasury proposal would have caused a decline in domestic oil production of 1.5 million barrels a day by 1995. Such a decline in domestic supply would have pushed our dependency on imports from 30 percent to 50 percent.

WHAT SHOULD WE DO?

Both the expensing option for intangible drilling costs and the percentage depletion allowance should be retained. Percentage depletion recognizes the diminishing nature of the oil or gas reserve by estimating its lost value. It also provides the necessary incentive to maintain production on completed wells. You must also bear in mind that production from an oil or gas well is not eligible for capital gains treatment as is the case with other capital assets, including some minerals.

Since there is no tangible asset constructed in connection with drilling a well, as there is in most other investments, intangible drilling costs--the costs associated directly with drilling a well--are allowed to be deducted as they are incurred, that is immediately. The economic uncertainty of the investment merits this type of treatment.

With regard to percentage depletion, particularly the royalty interest owner, the committee should consider a modification of the President's proposal. Under that plan, royalty owners would be denied percentage depletion and they would have to use cost depletion instead. The typical royalty owner does not have the resources to compute cost depletion which requires knowledge of production and reserve data. It is my opinion that many royalty owners would simply forgo any depletion and pay an excessive tax.

We operate at an extreme disadvantage with other producing nations. Under current conditions, the cost to develop our domestic reserves and find new ones far exceeds the world-wide average. We do not set the world oil price in this country which makes it difficult for domestic producers to recover their costs.

In conclusion, the oil and gas industry does not have a tax advantage under current law, compared to other industries. Simply put, it is overtaxed.

Increasing the tax burden could only further injure an already crippled domestic energy industry and drive more American dollars and jobs away from the United States.

THE NATIONAL ASSOCIATION
OF ROYALTY OWNERS, INC.

Washington, D.C., Legal Counsel: U.S. Senator Carl T. Curtis (ret.), David Stang, P.C., Michael Keeling, attorney
Field Services Office: 119 N. Broadway, P.O. Box C, Ada, OK 74820 Phone (405) 436-6534

EXECUTIVE COMMITTEE
[illegible]

BOARD OF GOVERNORS
[illegible]

July 12, 1985

U.S. Sen. Don Nickles
United States Senate
SH-713
Washington, D.C. 20510

Dear Senator Nickles:

Enclosed is the data we discussed this morning.

Capital gains represents not only the logical treatment for us, under the U.S. Treasury mandates, but also a potential counter-attack.

The plan has been endorsed by the executive committee of the National Association of Royalty Owners, Inc., and will be made public following your testimony, to our other officers and members.

In answer to your question on treatment of income:

We liken capital gains treatment on monthly sales as if we were selling off a farm a half-acre at a time, since minerals are an irreplaceable, non-recurring asset. Yes, we believe much of that existing will have a "zero basis" or near-zero owing to time of acquisition (pre-1950).

We are doing additional research that will be provided your office.

Thanks for the call and good luck in your Finance Committee testimony. We are pulling for you.

Sincerely,

Jim

Jim Stafford
Executive Director
NARO

P.S. Michael Keeling, our Washington representative, will coordinate this packet with your staff and provide additional information for your use.

cc. M. Keeling
Sen. Carl Curtis
T. Allen
Corky Schafer

"Dedicated to the needs of the nation's mineral, surface and royalty owners"

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NARO FAST FACTS ON WHITE HOUSE TAX PROPOSAL

- Phases out all percentage depletion (now 15 percent) for royalty owners, but preserves that of stripper production for independent producers.
- Makes royalty owners highest taxed single group of individuals in the history of the United States. Must pay windfall profits tax, severence tax and ad volorem tax (most states), plus state and federal income taxes.
- Will reduce total royalty income of $1.4 billion oil and gas royalty income yearly in Oklahoma.
- Will cut royalty income of individuals in nation by $900 million yearly when fully effective, according to U.S. Treasury Dept. projections.
- Hurts hardest elderly royalty owners on fixed incomes, and the thousands of farm and ranch operations dependent upon royalty for survival. Also hits hard all rural economies.
- Will reduce tax revenues of state government.
- Siphons income needed for state economy to the federal government.
- Would diminish income for 265,000 royalty owners in Oklahoma. Of these, 71 percent are nearing retirement or at retirement,
- Would diminish income for 2.5 million royalty owners in nation.
- Total tax plan will force independents from business and turn more leasing and drilling over to the few majors, which renders the nation more vulnerable to foreign imports, reduced exploration and less competitive leasing.
- Marks another direct hit on the rural economies by the White House and the anti-energy, anti-free enterprise Rust Belt Congressional delegation.
- Is the third major campaign promise to be broken by the Administration regarding the oil producing states.

SIDE BY SIDE COMPARISON OF SURFACE OWNER AND MINERAL OWNER

	SURFACE Owner	MINERALS Owner
ASSUMPTION	Mr. SURFACE is interested in selling his land to a prospective purchaser.	Mr. MINERALS would like to lease his mineral rights with the hope of future oil or gas production.
INITIAL CASH RECEIVED	Mr. SURFACE sells a two-year option on his land. The option money he receives is his to keep, irregardless of what the prospective purchaser may ultimately do.	Mr. MINERALS signs a two-year oil and gas lease in exchange for a lease bonus. This money belongs to Mr. MINERALS, whether the oil company drills or lets the lease lapse.
TAX REPORTING OF INCOME (TIMING)	Mr. SURFACE does not have to report his option money as income until the option is surrendered, terminated, or exercised.	Mr. MINERALS must report his lease bonus as income during the year he receives the cash.
TYPE OF INCOME REPORTED	If the option period is greater than one year and the asset covered by the option is subject to capital gains, e.g. land, the gain will qualify as long-term capital gain. Only 40% of Mr. SURFACE's option money will be subject to tax.	The lease bonus is considered ordinary income, with the only deduction being a 15% statutory depletion. Thus, 85% of Mr. MINERALS' lease bonus will be subject to tax. (Note: The oil company making the payment cannot deduct it, but must capitalize it instead, subject to write-off against future oil income received.

	SURFACE Owner	MINERALS Owner
TWO YEARS LATER--OPTION & LEASE BOTH LAPSE:	Mr. SURFACE finally reports as income the money he received two years ago. Additionally, he receives the preferential long-term capital gains treatment on that income.	Mr. MINERALS must report as income the amount he previously deducted as percentage depletion. This income is taxed at the higher ordinary income tax rate.
TWO YEARS LATER--OPTION & LEASE ARE EXERCISED:	Assuming the option is exercised, the amount of the option payment will be considered part of the total sales price received for the land sold. Mr. SURFACE will report all of his gain as long-term capital gain.	A. IF OIL OR GAS IS FOUND, Mr. MINERALS will be entitled to approximately 20% of the production. He has, in fact, "sold" the other 80% to the oil company. Although he "sold" his asset, (just as Mr. SURFACE did), he did not receive equal tax treatment. Furthermore, Mr. MINERALS must report all subsequent royalty income as ordinary income. And once a barrel of oil or MCF of gas is removed, it will never be replaced. Mr. MINERALS' asset is gone forever. B. IF OIL OR GAS IS NOT FOUND, not only does Mr. MINERALS recieve no further cash, but he must report as income the amount he previously reported as a deduction for percentage depletion. He also has little or no chance of ever leasing that property again.

INCOME TAX EFFECTS:

(Assuming Married, Filing Joint Return, & No Other Income)

EXAMPLE 1

	SURFACE Owner		MINERALS Owner	
Cash rec'd 10/1/84:		$ 50,000		$ 50,000
Income Taxes Paid:				
1984	$ 0		$ 8,031	
1985	0		0	
1986	2,106		234	
Total Tax Paid:		(2,106)		(8,265)
AFTER-TAX CASH:		$ 47,894		$ 41,735

EXAMPLE 2

	SURFACE Owner		MINERALS Owner	
Cash rec'd 10/1/84:		$100,000		$100,000
Income Taxes Paid:				
1984	$ 0		$ 24,828	
1985	0		0	
1986	12,000		1.265	
Total Tax Paid:		(12,000)		(26,093)
AFTER-TAX CASH:		$ 88,000		$ 73,907

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	SURFACE Owner	MINERALS Owner
SUMMARY	In the first example ($50,000), not only did Mr. SURFACE pay considerably less in income taxes, but he had "free" use of his money throughout the 2-year option period. In the second example ($100,000), despite the fact that Mr. SURFACE was subject to an alternative minimum tax of $4,794 (included in his $12,000 total tax), he still paid much less income tax than Mr. MINERALS.	The majority of mineral interest owners are farmers and ranchers, or the descendents of farming and ranching families. There has typically been little or no opportunity for these individuals to plan for retirement. Those who are still actively farming and ranching are suffering due to drought conditions and depressed prices for commodities. These people are using lease bonus funds in order to subsidize their farming and ranching operations.

STATEMENT BEFORE

COMMITTEE
ON

FINANCE

UNITED STATES SENATE

E. L. BUD STEWART, JR.
ENERGY CONSUMERS AND PRODUCERS ASSOCIATION
P. O. BOX 1726
SEMINOLE, OKLAHOMA 74868
(405-382-5363)

JULY 17, 1985
WASHINGTON, D. C.

I am Bud Stewart, President of an association of small independent oil and gas producers and royalty owners called Energy Consumers and Producers Association. Our membership numbers approximately 700 individuals and firms located in 30 states. ECPA headquarters is in Seminole, Oklahoma.

Mr. Chairman and members of the House Ways and Means Committee, ECPA is pleased to have an opportunity to express views on tax reform generally, and most specifically, the reform of taxation of oil and gas exploration and production.

In a little over one decade the U.S. has needlessly suffered two severe energy shocks. The crises of the oil embargo in 1973 and the shortage of domestic natural gas in the 1970s both had their root causes in failed energy policies of the federal government. This Congress at this time in 1985 can either repeat the energy errors of the past or it can do all possible to assure that the energy needs of our country are sufficient not only to meet any emergency but are adequate to serve an expanding economy.

The oil embargo became possible because the domestic oil industry for far too many years had been inundated with imported crude oil and refined products which could be produced, delivered and marketed in the U.S. at a price cheaper than domestic supplies. Increased demand was met by increased imports. Since natural gas cannot be imported, many years of federal price controls on natural gas at below production costs rendered a shortage of gas inevitable.

The OPEC cartel's increase in the price of crude oil and the partial relaxation of price controls on natural gas resulted in a price structure conducive to increased investment in exploration which temporarily halted the precipitous decline in domestic oil reserves and production and caused the luxury now enjoyed of a surplus of natural gas.

To accomplish this remarkable reversal of supply and demand, the industry increased drilling from a low of 27,000 total wells in 1971 to a high of 88,000 total wells in 1982. ECPA has often testified that to maintain domestic supplies the energy policy of the U.S. should be to provide the investment climate to encourage 80,000 wells be drilled each year. Unfortunately, even as we speak today fewer and fewer wells are being drilled compared to only one or two years ago. Recent estimates indicate perhaps 70,000 wells may be drilled in 1985. This rate is far below that necessary to replace both oil and gas reserves currently being produced and used. Last week total imports were 35% of demand - less than the 48% at the time of the embargo in 1973 but far more than the approximately 12% of 1960.

To place the question of crude oil prices in proper perspective, when I first became employed in the oil business in 1951 the price of crude oil was $2.90 per barrel. Twenty-two years later in 1973 the price was $3.35 per barrel. Had imports been limited and the price of both oil and gas been allowed to keep pace with inflation during the same period of time, it is a safe conclusion there would have been no effective embargo and no gas shortage. An adequate price plus the investment incentives then in place would have been adequate to sustain the high drilling pace of the mid 1950s. These incentives were a 27½ percent depletion allowance; and first year write-offs of drilling expenses; and a top income tax bracket of 90% which, of course, considerably increased the value of the tax incentives.

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As this committee recognizes, all of that has changed. Now those most likely to invest in drilling are in the 50% top tax bracket; have only a 15 percent depletion allowance; but still retain drilling cost write-offs. Moreover, currently there is the further disincentive of the added "windfall profits" tax.

When stripped of the romantic tales of the last "boomtown" and when denied the use of "funny money" provided by the recent excesses of the banking community, investments in oil and gas exploration must compete with all other business investments, and like them, success must be measured by the return on investment. When wildcat drilling results in only one producer of ten attempts and only one in forty discovers a commercial pool, and even when development well drilling begets 30 percent dry holes, the degree of risk should become apparent to the most skeptical observer.

If there is no distinction made between investing in oil and gas exploration than investing in real estate, stocks, bonds, or certificates of deposit, why would any prudent money manager or investor assume the risks of oil and gas exploration when he could place his funds in high yield money funds at no risk? Oil and gas investments cannot compete on a "level playing field"! There must be incentives commensurate with the risks!

The oil and gas industry was united in its opposition to the Treasury Department's proposals published last fall. The new proposals recently presented by President Reagan and Secretary Baker are only marginally improved over the original plan and decidedly offer much less than required to maintain a viable energy industry.

In the foreseeable future product prices offer no hope for increases of the magnitude needed to act as an incentive - many anticipate prices of both oil and gas may bottom at roughly 50% of the highs of 1982. Currently only 40 percent of the nation's rig capacity is at work drilling holes, and as I stated previously, it is obvious fewer wells will be drilled this year than in prior years. Thus, the combination of falling prices and insufficient incentives under current law will not sustain drilling to maintain supplies. The further erosion of incentives as proposed under the guise of tax reform can only accelerate the problem. As impolitic as it may be, if the discovery of additional domestic supplies of oil and gas is a part of a national energy plan, and I certainly believe it should be, then every consideration should be given to increasing incentives for investment and not the opposite.

Only afew years ago President Carter characterized the energy crisis as "the moral equivalent of war." The citizens responded by achieving far more energy conservation than most deemed possible. There presently is every indication that conservation has about run its course short of compulsory measures. In the 1970s the oil exporting nations of the Persian Gulf provided the bulk of the U.S. imports of crude oil. While this is no longer true, the remaining sources of supply are barely less vulnerable to disruption. Moreover, aside from the source of the imports, some consideration needs to be given to the additions to our imbalance of foreign trade as imports inevitably rise. Already oil and products account for almost one half of that imbalance.

In closing Mr. Chairman, we independent producers urge this committee and this Congress to retain, indeed restore, adequate incentives to enable us to attract outside capital; to continue to drill the vast majority of prospects in the U.S. by reinvesting all of our earnings as we have done in the past; and to diminish the use of imports to meet our energy needs.

Senator NICKLES. Thank you very much, Mr. Chairman.

And, Senator Long, it is a pleasure for me to join with my colleague Senator Johnston, also from Louisiana, whom I have had the pleasure of serving with on the Energy Committee. We have worked together on many energy matters. These issues are important, certainly they are important to the State of Oklahoma, to the State of Louisiana, as well as the entire Nation. There are important questions regarding this issue of tax simplification. I appreciate the chairman's patience and willingness and diligence in conducting these lengthy hearings to examine in depth several of the administration's proposals, and other proposals as they conform or move in the efforts to simplify the Tax Code. My particular concerns relate to the energy industry. I have a few comments in that regard. One is the misconception that the energy industry is undertaxed, or not taxed. That is false. It is totally false. There is no other industry in the United States that pays more tax than the oil and gas industry. I think that fact has not been heard in Washington, DC, and it needs to be heard. I have the facts to back that up.

According to the Joint Committee on Taxation in its study of 1983 effective corporate tax rates, the petroleum industry had an effective tax rate of 21.3 percent. The average of all industries was 16.7 percent. So it is well over average. That is corporate income tax, Mr. Chairman. But I will point out to you—and I am sure that you are aware of it—the oil industry is the only industry that also pays a windfall profit tax. And the windfall profit tax which was imposed by Congress in the Carter administration in 1980 is a very severe tax. In 1983, the windfall profit tax totaled $12.2 billion. All corporate income tax together in 1983 was $36 billion. So in addition to paying a sizable portion of the corporate income tax, it also paid a tax equal to approximately one-third of all the corporate income tax together. This is the tax for one industry, Mr. Chairman. There is no other industry that has a windfall profit tax. And I think this fact is many times lost in some of the comparisons.

Also, as far as additional taxes, the oil and gas industry pays a considerable amount in what we call gross production or severence taxes. Twenty-eight States collected $6.6 billion of these taxes in 1984. So, again, as you talk about tax burdens, I think it is important that we look at corporate income tax, we look at windfall profit tax, we look at excise taxes and production taxes as well. If you add all those things together, you will see that the oil and gas industry is the most heavily taxed industry. It pays and contributes more taxes than any other industry in the United States of America.

I have not even mentioned the gasoline taxes and some of the retail taxes that are assessed on top of these taxes as well. I sincerely hope that the committee when they are considering a lot of the changes and potential changes—and you hear some of the demagoguery about big oil not paying their full share of taxes—that you will consider the facts and I am confident that you will.

Another thing that we hear sometimes—and it doesn't amuse me, it kind of bothers me, again I think maybe it is because people are misinformed or misled—they say, well, the oil industry, Mr. Chairman, gets off easy in this second proposal. I also hear that Treasury II is a lot better and it really made it easy on the oil industry. That is not true either. Just look at some of the provisions that are proposed. I do agree that Treasury II is a lot better than Treasury I, certainly in regards to the oil and gas industry, but in regards to many other industries. I think Treasury I left a lot to be desired. I really think it is almost an embarrassment, but at least it has been improved, but it still needs further improvement. But the oil and gas industry did not get off easy. They did not get a free clean bill of health. They did not get present law. Under the administration's tax proposal, percentage depletion is phased out for independents on all wells except for stripper wells. That is a significant change. That is a significant change from many perspectives mainly because most of those individuals went out and put money in the ground, or the royalty owners, and royalty owners lose all percentage depletion under this proposal. So they bought the land or they leased the land with the expectation that they would have percentage depletion. The individual went out and drilled the well with the expectation that he is going to get percentage depletion. They sunk that money in 5 years ago, 10 years ago, maybe 3 years ago, maybe 2 years ago, and now Congress is coming up and saying, "well we are going to change this retroactively and you are not going to be able to get percentage depletion in the future."

We have a restriction in the definition of stripper well property. We also have greater exposure of incomes to the alternative minimum tax. We also have longer depreciation periods for tangible property.

So if anybody says, well the oil and gas industry got off clean or got an easy slate under Treasury II, or something, I think, again, they are misinformed.

Let's talk about intangible drilling cost. I have heard somebody say, oh, well, they were able to keep immediate expensing for intangible drilling costs. What a great thing that is. Well let me tell you, Mr. Chairman, I also happen to be a businessman, and I can tell you that almost all businesses do have the opportunity to do expense their out-of-pocket, nonrecoverable business expenses. I have heard so much rhetoric and demagoguery over IDC's, and most Congressmen or Senators or most people that talk about IDC's don't know what IDC's are. But IDC's are basically nonrecoverable out-of-pocket business expenses that you sink in the ground that you can never ever get back. And again, most businesses, Senator Long, as you probably know, do expense those types of items. IDC's are primarily wages and most businesses, again, expense those.

Also, Senator Long and Senator Packwood, when you are considering the types of cost recovery systems, I would like to see you move more into the area where all capital items would be expensed. This would allow people to take a deduction for out-of-pocket business expenses. Instead of capitalizing everything or trying to depreciate everything—allow them the deduction and expense for that item. Then you do not need to have the extra incentives of investment tax credits and accelerated depreciation—or increase the base with inflation. You wouldn't have to play all those games, really, if you were expensing these items. I would hope that the committee would move in that direction.

One final comment, Mr. Chairman. I did tell you I wanted to summarize my comments, and I will, regarding the state of the energy industry today. The state of the industry, as the chairman and I know Senator Long is aware of, is in difficult times. I heard Senator Johnston give some figures from his State, and my State of Oklahoma is in difficult times as well, and possibly worse. The number of rigs that are running in the country today is about 1,800. Two and a half years ago we had 4,500. Now, that means we are running about 40 percent of the rigs today that we are running 2½ years ago. And if we are not poking as many holes in the ground and being as aggressive in oil and gas exploration today, you will find we will pay the consequences tomorrow.

I am not one that comes up and mandates economic parameters. I don't want to mandate price controls or higher prices, or anything else. Let's allow the marketplace to decide that. But certainly don't pull the rug out from underneath an industry at a time when it really is in very, very difficult and dire straights. And this applies a lot further than to just the oil and gas industry; it also applies to banking. We have had 15 banks in my State fail just in this last about 3 years. We are still feeling the dominoes of the Penn Square Bank failure. I hope, again, that we in Congress don't exacerbate some of those problems.

I thank the chairman and also Senator Long for your willingness to consider our position, and I look forward to working with you in the upcoming days.

The CHAIRMAN. Thank you very much. I have no questions.

Senator Long.

Senator LONG. You made a very fine statement, Senator Nickles, and so did Senator Johnston. He is not here at this moment, but I appreciate what you both said.

I think it is well to look at the statement of Mr. Charles DiBona, who is one of the succeeding witnesses. He has a chart which shows the taxes paid by the average oil company compared to the average for nonoil companies in the United States, and not only do the oil companies pay more income tax, but that windfall profit tax goes on top of that.

The windfall profit tax is a tax on the income of an oil producer every bit as much as the regular income tax is. And if he weren't paying the windfall profit tax, he would be paying a higher corporate income tax, because you can deduct one before you apply the other. Now, if you add the two together, that works out to 36.7 percent of their income compared to 22.2 for the nonoil companies.

So it is difficult for me to see how a case can be made that further taxes ought to be heaped upon this industry, especially when the industry is very much in a depression.

The Penn Square failure in your State emphasized what has been happening all through the oil patch, and many banks have gone under. Many of them are in bad shape because they loaned money to oil and gas producers, mainly independents, at a time when the price was more favorable. When the price dropped as drastically as it did, those banks were in trouble as a result. As you know, practically all of the workers have taken a major cut in pay, and many of them have lost their jobs. You are familiar with that in Oklahoma.

Senator Nickles. Certainly.

Senator Long. The same thing has happened in Louisiana.

Senator Nickles. I appreciate your comment very much.

Senator Long. Thank you.

Senator Nickles. Mr. Chairman, I would make one final comment. I see my colleague Senator Boren, and I appreciate working with him. We have worked closely together on these issues.

But when we talk about windfall profit tax, I hope the chairman will remember that the windfall profit tax is strictly applied to domestic production; we have no windfall profit tax on imports, and therefore we encourage imports and discourage domestic production. At least, at a bare least, there should be a parity to where we don't encourage imports. You know, a lot of people are talking about protectionist measures, or whatever, to protect one industry or another; but we do have a domestic production tax that we do not have on imports, and that's the windfall profit tax. And it is to the tune of—I mentioned $12.2 billion in 1983; last year it was $9 billion because the prices fell substantially. But still, you are talking about $9 or $10 billion. A couple of years before that it was $22 billion. And I would agree with Senator Johnston; I think if we continue to see the number of active rigs decline, we will see higher prices in the future, and you also will see higher windfall profit tax in the future as well.

But I hope the chairman will remember, when you are looking at different areas for revenue and so on, that we do have a discrepancy in the fact that imports pay no tax—on imports and/or on products. There is a small products tax on some gasoline, but still the net essence is, on oil, we do have a domestic production tax that we do not have on imports, and it is an inequity that we should address at some time.

Thank you.

The Chairman. Thank you. Senator Boren.

Senator Boren. Thank you very much, Mr. Chairman.

I appreciate the comments that I have just heard. I have been looking at a study that has just been completed, by the way, in regard to the possibility of an impact of an oil import fee. There have been recent articles in the press talking about the possibility that we could see rather dramatic drops in oil prices in the next few months, and looking at what this could produce. If we are looking at revenue, we already have the windfall profits tax; we already have severance taxes; we already have a heavy income tax burden, as has just been mentioned, on the domestic energy industry. If we had a $5-a-barrel import fee on crude oil and $10 on refined products, we would produce, not only directly in terms of fees but also in additional windfall profit tax collections and income tax collections that would be generated, according to the studies that I have seen, over $18 billion a year. And we would also create 119,000 new jobs in this country.

So when we are looking at alternatives, if there is any inclination to put additional taxes on the energy industry, I would suggest from the point of view of fairness and in terms of our national security, jobs here at home and also helping to ease the deficit, that the most effective way to do that would be to consider an import fee at this time rather than the measures that have been proposed.

I am pleased to be able to participate in this discussion today, not only as a member of this committee but also as a witness.

Let me state at the outset that I believe there is nothing wrong in using the Tax Code to encourage the accomplishment of worthwhile goals. It is absolutely vital to our national security that we should encourage energy independence and the provision of an adequate supply of energy at reasonable cost.

The current Treasury proposal would end percentage depletion for independent producers except in the case of stripper wells, and would totally end the allowance for all royalty owners. This, coupled with an end to the investment tax credits, would seriously hurt the domestic energy industry. It would damage our hopes for increased domestic energy independence, and it would increase the already intolerable trade deficits.

Mr. Chairman, I am very concerned with the tone and direction of the Treasury proposals. They would do nothing to encourage domestic production; they would in fact discourage production. As a result of these proposals, we as a nation over the next 5 years would lose approximately 465 million barrels of oil equivalent and added reserves. This is more than we have stored in the strategic petroleum reserve.

I am also concerned about the impact of this proposal on royalty owners. They are already one of the highest taxed groups in the country. The majority of royalty owners are retired, living on fixed incomes, and I see nothing fair about increasing their taxes.

The most important question remains to be asked, and I have already mentioned it at the outset: Why tax domestic energy production at all? Why don't we tax foreign energy production if we need to have additional taxes?

Now, I could go into the individual items, and I will just mention these briefly and submit the rest of this data for the record.

You all know the history of percentage depletion. The provision dates back to the 1920's, to begin with. It is a recognition that there is a difference between a wasting asset and one that is not renewable in any sense. The independent operators have continued to have the deduction at 15 percent, the rate in 1984. And we have just had a summary of a study commissioned by the Interstate Oil Compact Commission to measure the impact just of the provision doing away with percentage depletion for independent producers on our home State of Oklahoma alone. Just in our one State, drilling expenditures would be reduced by $55 million a year; 2,700 jobs would be eliminated; annual revenues from oil and gas sales would fall by $17 million; and additions to Oklahoma's oil and natural gas reserves would be reduced by 27 million barrels.

Now, I also want to highlight the impact on royalty owners. I know I see Senator Long here. Two or three years ago when we had a discussion of taxes on royalty owners, Senator Dole and Senator Long and I, and others, and Senator Bentsen, had a series of hearings in regard to impact on royalty owners. I think they were the most well-attended hearings probably in the history of this committee in terms of field hearings.

I had some additional hearings recently in Oklahoma, and I want to submit for the record, and I would ask consent to do that, statements that were made by those who attended that hearing.

[The statements follow:]

STATE OF OKLAHOMA
OFFICE OF THE GOVERNOR
OKLAHOMA CITY

GEORGE NIGH
GOVERNOR

June 13, 1985

Honorable David Boren
United States Senate
Washington, D.C. 20510

Dear David:

I greatly appreciate this opportunity to present my views with regard to President Reagan's proposal concerning the elimination of the depletion allowance. I regret I can not personally appear at your most timely public meeting due to some out of town committments. I have asked Mr. Ed Pugh of my staff, who is my Senior Administrative Assistant for Natural Resources, to make my statement in my absence.

I would appreciate it if you could transmit my statement to Senator Packwood.

Again, I commend you for conducting this most important fact finding meeting with the citizens of Oklahoma.

Sincerely,

George Nigh

George Nigh

ELIMINATION OF THE DEPLETION ALLOWANCE

Statement

By

Governor George Nigh

As the Governor of a major crude oil and natural gas producing state, I have serious mixed feelings about the President's Tax Plan. On one hand I am very pleased and on the other hand I am very disappointed. I am very pleased because President Reagan, contrary to the recommendation of his Administration, decided to take some of our advise in considering what devastating effects the U.S. Treasury Plan would have on the oil and gas industry and the producing states, and decided not to support several damaging federal proposals. The President decided not to eliminate deductions for intangible drilling costs and not to eliminate the depletion allowance for stripper oil wells, wells that provide less than ten barrels of oil a day.

In my opinion these two truly disastrous proposals by the U.S. Secretary of the Treasury Donald Regan should have never been proposed as a serious consideration by the Administration in Washington, D.C. Their official endorsement by the U.S. Treasury and their consideration over the past seven months hurt the oil and gas producer, hurt the oil and gas service industry, hurt the mineral owners and hurt the economy of the producing states. I am pleased that these irresponsible proposals did not receive the President's blessings.

On the other hand, I am very disappointed. I am disappointed because the President's tax plan endorses eliminating the depletion allowance for over 260,000 Oklahoma royalty owners and eventually eliminating the depletion allowance for thousands of Oklahoma independent oil and gas producers. The royalty owners are the people who actually own the oil and the gas in the ground. They decide one by one whether they want to lease their minerals or participate in the drilling of a well. That oil and gas is their private property, their resource and as much as anything it is their investment for their livelihood and for their family. It is a property which is a non-renewable depleting resource if produced, and once it is in production this property owner deserves a reasonable allowance for the depletion of his resource, which our country depends upon so much. The federal depletion allowance in the past few years has already been decreased from 27 1/2% to 15%. Royalty owners have already compromised and now all of a sudden they are faced with having nothing, no federal depletion allowance. This is unfair.

One type of royalty owner which will be hardest hit is the rural family, particularly our farmers and ranchers that are facing a crisis in the agricultural sector of our economy. They can ill afford further family and business income reductions. Another type of royalty owner which will severely feel the pinch on their limited budgets, are the elderly and the widowed. According to the National Association of Royalty Owners, a significant number and percentage of royalty owners are in these categories.

The President's proposal which eliminates tax deductions for royalty owners not only eliminates deductions on oil and gas royalty payments, but also lease bonuses. As they say, what is good for the goose is good for the gander. What if Oklahoma and other producing states eliminated our tax deductions for state depletion allowances? Surely, the federal government does not expect the individual states to provide tax incentives to support good national energy policy and national security, obvious federal responsibilities.

Concurrent with the release of the President's tax plan, as co-chairman of the Interstate Oil Compact Commission, I requested the IOCC to pursue a study to evaluate the impact of the proposed elimination of the federal depletion allowance. Two studies have been prepared. One addresses the impact on the Nation and one evaluates the impact on Oklahoma. I am releasing the results of those studies today as supplements to my statement.

As you can imagine the results are not good. The results indicate there will be a very adverse impact on the producing states as well as the nation. This will wind up costing all of us including the federal Treasury, certainly, not help us. This ultimately will result in the transfer of money from Oklahoma's economy to Washington, D.C. and a shift of huge tax deductions from Washington, D.C. to Oklahoma. This proposal by the President definitely needs his thorough re-evaluation.

On five occasions I have requested to meet with the President to discuss the effect his Administration's proposed tax policies will have on the industry, on the royalty owners, on the producing states and the nation. Although the President, during a White House meeting with all the nation's Governors, committed to meet with several oil and gas producing Governors, no such meeting has evolved.

I am very disappointed in the President's inaccessibility and in the President's apparent unwillingness to discuss these issues with the chief executives of the producing states who are uniquely familiar with the effect these proposals would have.

In my opinion the federal government must recognize the overall importance of a stable and viable domestic oil and gas industry to this nation's economy and security. I urge the President and Congress to be both fair and responsible in their development of any revisions to our current tax system.

Regarding other proposals endorsed by the President which relate to oil and gas, we are continuing to evaluate those and will present our findings at a later date.

I appreciate this valuable opportunity to present to you my views on this most important issue.

Supplements (enclosed)

1. Interstate Oil Compact Commission Study (RAM Group,Inc.) Impact on the Oklahoma Economy of Reagan Tax Proposals on Percentage Depletion (June, 1985)
2. Interstate Oil Compact Commission Study (RAM Group,Inc) Impact on the National Economy of Regan Tax Proposals

The RAM Group, Ltd.

IMPACT ON THE OKLAHOMA ECONOMY OF REAGAN TAX PROPOSALS ON PERCENTAGE DEPLETION

Introduction

This study examines the impact on the Oklahoma economy of President Reagan's proposal to repeal the percentage depletion allowance for all oil and gas production, other than for independent producers' production from stripper oil wells. While the adverse impact of the President's overall tax plan on the oil and gas industry is much less severe than the disastrous proposals made in December, 1984 by the Treasury Department, the President's plan will still cause a measurable reduction in domestic oil and gas drilling and production.

Under current federal tax laws, independent oil and gas producers and royalty owners are allowed to deduct 15% of the gross revenues from a limited amount of their oil and gas production, provided that the amount of percentage depletion allowed cannot exceed 50% of the net income from a particular property. The amount of oil and gas subject to percentage depletion allowed cannot exceed an average daily production of 1,000 barrels of oil or 6,000 Mcf of gas.

Percentage depletion, when allowed and if greater than cost depletion, must be taken in lieu of cost depletion. Percentage depletion allowed is deducted from capitalized costs, but may continue to be taken even if all capitalized costs have been recovered. Cost depletion may be taken only to the extent of capitalized costs.

The Treasury Department has estimated that the President's proposed tax treatment of percentage depletion will increase federal tax revenues by nearly $42 billion, as the allowance is phased out over a five year period. Based on this estimate, The RAM Group, Ltd. has projected the reduction on drilling expenditures, and the resulting economic impact, that would result if the proposed tax plan is enacted.

Major Findings

The study found that repealing the percentage depletion allowance, as proposed by the President, would have the following results, on average, in Oklahoma during the 1986-1991 period:

-- drilling expenditures would be reduced by $55,883,700 annually;

-- employment would be reduced by the 2,794 jobs each year, due to reduced drilling;

-- royalty owners would pay $210 million in increased taxes, while working interest owners would pay an additional $239 million between 1986 and 1990;

-- 125 fewer oil and gas wells would be drilled during the six year period;

-- drilling rigs in operation would be reduced by 5 annually;

-- daily oil and natural gas production would fall by 2,468 barrels of oil equivalent;

-- annual revenues from oil and gas sales would fall by $17,679,575;

-- state tax receipts from oil and gas production would decline by $1,252,598 annually;

-- additions to Oklahoma's oil and natural gas reserves would be reduced 27,941,850 barrels of equivalent, during the six year period.

Nationally, between 1986 and 1991, the domestic oil and gas reserve additions that would be lost as a result of this tax proposal total 465 million barrels of oil equivalent. By foregoing this drilling, the Treasury expects to collect an additional $4.2 billion in tax revenues. However, the reserves lost exceed the 451 million barrels stored in the National Strategic Petroleum Reserve at a cost to the taxpayers of $14.5 billion. Since the reserves are roughly equal, it appears that federal government could have saved $10.3 billion by doing nothing.

Background on Percentage Depletion

Percentage depletion is a tax provision that dates back to before 1920 and applies not just to oil and gas, but to other natural resources such as coal. The tax laws often distinguish between capital and income so capital is returned for future investments. But as an oil well produces, the producer's capital is being steadily depleted. So the percentage depletion deduction was established to prevent a gradual loss of capital by leaving the producer with more after-tax dollars needed to drill new wells and, thereby, replace the depleted reserves.

From 1926 to 1969, oil operators were generally allowed to deduct 27.5% of gross income from an oil property as percentage depletion. The 1969 Tax Reform Act cut the depletion percentage for oil properties to 22%. In 1975, a new tax law eliminated percentage depletion on oil properties for all major oil companies. But the law allowed small, non-integrated independent producers to keep their percentage depletion deduction at 22% until 1980, then gradually declining to 15% in 1984.

Impact on Oklahoma Economy

Table One, Impact of Reagan Tax Proposals on Percentage Depletion, 1986-1991, summarizes the average annual adverse impact on the economic performance of Oklahoma's oil and gas industry that would result if the tax proposals were enacted.

Table Two, Oklahoma Analysis of the Impact of the Proposed Tax Treatment of Percentage Depletion on Drilling Expenditures, Wells Drilled, Employment and Reserves Found, 1986-1991, provides an annual breakdown of the analysis.

As seen in Table Two, the analysis is based on the Treasury Department's estimates of increased tax collections from individuals and corporations as the percentage depletion allowance is phased out between 1986 and 1990. For purposes of this analysis, increased tax collections for 1991 were assumed to be the same as in 1990. The Treasury estimates were reduced by 5% to account for increased tax collections from royalty owners. The estimates were then reduced from national to Oklahoma levels, based on Oklahoma's percentage of the nation's total value of oil and gas production, excluding production from stripper oil wells. The resulting estimate of $335 million in increased tax collections from Oklahoma is assumed to be funds that would otherwise have been spent on drilling.

Drilling expenditures were forecast to remain at 1984 levels, less the cash flow effects from the increased tax payments. Each one million dollars of reduced drilling expenditures is expected to result in the loss of 50 jobs, of which 32 would be in the petroleum industry and 18 in supporting industries. (At an average well cost of $447,794, as per the 1983 Joint Association Survey, the annual reduction in wells drilled was calculated. Assuming a finding cost of $12 per barrel of oil equivalent discovered, the reduced drilling expenditures are projected to reduce reserve additions by 27.9 million barrels of oil equivalent (oil and natural gas, where one barrel of oil is the energy equivalent of 5,800 cubic feet of gas). The reduction in reserve additions was used to calculate the reduction in daily production that would have been available from these reserves. Assuming 1986-1991 average wellhead price of $19.63 per barrel of oil equivalent, reductions in annual oil and gas revenues were calculated based on the decline in annual production. Finally, the reduction in state severance tax payments was projected using a 7.09% severance tax rate.

Charts One through Seven demonstrate the Oklahoma economic impact data for the years 1986 through 1991. Table Three, Oklahoma Impact of Removal of Percentage Depletion on Royalty Owners and Working Interest Owners (Excluding Stripper Well Working Interest), shows that taxes paid by Oklahoma royalty owners and working interest owners would increase by $25 million in 1986 and reach a grand total of $449 million in increased tax payments in 1990. This estimate is based on assumptions that royalty averages one-sixth of the gross value at the wellhead; the value of Oklahoma oil and gas production is constant at $9,585 million per year, and that stripper oil well production is valued at $2,802 million per year.

Charts Eight through Thirteen demonstrate the tax increases faced by Oklahoma royalty owners and working interest owners, both annually and cumulatively, as percentage depletion is phased out over a five year period from 1986 through 1990.

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Table One

NASDEP

INPACT OF REAGAN TAX PROPOSALS ON PERCENTAGE DEPLETION
1986 - 1991

AVERAGE IMPACT 1986 - 1991	OKLAHOMA
REDUCTION IN ANNUAL DRILLING	$55,883,780 Per year
REDUCTION IN JOBS	2,794 Per year
REDUCTION IN NUMBER OF WELLS DRILLED**	129 Wells
REDUCTION IN DRILLING RIGS	5 Per year
REDUCTION IN OIL AND GAS RESERVES ADDED**	37,961,850 Boe
REDUCTION IN OIL AND GAS PRODUCTION	2,468 Boe per day
REDUCTION IN ANNUAL OIL AND GAS REVENUES	$17,670,375 Per year
REDUCTION IN SEVERANCE TAX PAYMENTS	$1,353,390 Per year

** Wells drilled and reserves are cumulative 1986 thru 1991.
All others are averages per year.

Basis:

- 1984 average number of drilling rigs:	219
- 1984 JAS total drilling expenditures:	$3,097
- 1983 JAS average well cost:	$467,794
- Gross production tax rate:	7.09%

- After 1986 industry expenditures remain at 1984 levels + or - cash flow effects from forecast tax payments.

- Forecast tax payments are as estimated in the Treasury's analysis of the impact of the phaseout of percentage depletion.

- Reserves are added at a $12.86 per barrel oil of equivalent from 1986 - 1991.

- The 1986 - 1991 average wellhead price of oil and gas combined is $19.63 per barrel of oil equivalent.

- A reduction in drilling expenditures of one million dollars results in a loss of 50 jobs (32 direct petroleum industry jobs and 18 indirect jobs).

OKLAPD

OKLAHOMA
ANALYSIS OF THE IMPACT OF THE PROPOSED TAX TREATMENT OF PERCENTAGE DEPLETION ON DRILLING EXPENDITURES, WELLS DRILLED, EMPLOYMENT & RESERVES FOUND - 1980- 1991

1986 DRILLING RIGS	319
1983 WELL COST	$467,794
GPT TAX RATE	7.08%

	CURRENT LAW		REAGAN PROPOSAL							
YEAR	TOTAL CASH AVAILABLE FOR DRILLING ($mm)	J A S DRILLING EXPENDITURES ($mm)	TOTAL CASH AVAILABLE FOR DRILLING ($mm)	J A S DRILLING EXPENDITURES ($mm)	REDUCTION IN TOTAL CASH AVAILABLE FOR DRILLING ($mm)	REDUCTION IN DRILLING EXPENDITURES ($mm)	REDUCTION IN EMPLOYMENT (JOBS)	REDUCTION IN TOTAL WELLS DRILLED	REDUCTION IN DRILLING RIG ACTIVITY	REDUCTION IN RESERVES ADDED (mmBOE)	REDUCTION IN DAILY PRODUCTION (BOE/DAY)
80	$2,910	$2,910	n a	n a	n a	n a	n a	n a	n a	n a	n a
81	$5,266	$5,266	n a	n a	n a	n a	n a	n a	n a	n a	n a
82	$4,559	$4,559	n a	n a	n a	n a	n a	n a	n a	n a	n a
83	$3,697	$3,697	n a	n a	n a	n a	n a	n a	n a	n a	n a
84	$3,697	$3,697	n a	n a	n a	n a	n a	n a	n a	n a	n a
86	$3,697	$3,697	$3,686	$3,686	$11	$11	571	25	1	1	91
87	$3,697	$3,697	$3,674	$3,674	$23	$23	1,142	51	2	2	663
88	$3,697	$3,697	$3,637	$3,637	$60	$60	1,903	88	3	3	1,186
89	$3,697	$3,697	$3,620	$3,620	$77	$77	3,305	152	4	4	2,373
90	$3,697	$3,697	$3,600	$3,600	$97	$97	4,037	216	5	5	4,226
91	$3,697	$3,697	$3,600	$3,600	$97	$97	4,037	216	5	5	5,588
TOTAL	$22,182	$22,182	$21,817	$21,817	$365	$365	n a	748	n a	20	n a
AVERAGE	$3,697	$3,697	$3,636	$3,636	$61	$61	2,794	125	3	3	2,888

AVERAGE IMPACT 1986-91

REDUCTION IN DRILLING EXPENDITURES YEARLY	$61 MILLION
REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING	2,794 JOBS
REDUCTION IN NUMBER OF WELLS DRILLED YEARLY	125 WELLS
REDUCTION IN DRILLING RIG RUNNING YEARLY	3 RIGS
REDUCTION IN RESERVES ADDED AT $12.36 PER BOE	20 mmBOE
REDUCTION IN DAILY OIL AND GAS PRODUCTION	2,888 BOE/DAY
REDUCTION IN OIL AND GAS SALES	$18 MILLION
REDUCTION IN STATE GPT COLLECTIONS	$1 MILLION

ASSUMPTIONS

INDUSTRY EXPENDITURES ARE REDUCED BY THE INCREASED AMOUNT OF TAXES PAID BY PRODUCERS
THE INCREASED TAXES PAID ARE AS FORECAST BY THE TREASURY DEPARTMENT'S ANALYSIS
THE REDUCTION IN DRILLING EXPENDITURES ARE EQUAL TO THE INCREASED TAXES PAID AFTER ADJUSTING FOR NON-OPERATOR ROYALTY
1986 AVERAGE WELLHEAD PRICE WAS $15.63/BOE
A REDUCTION IN DRILLING EXPENDITURES OF ONE MILLION DOLLARS RESULTS IN A LOSS OF 54 JOBS

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41

Table Two

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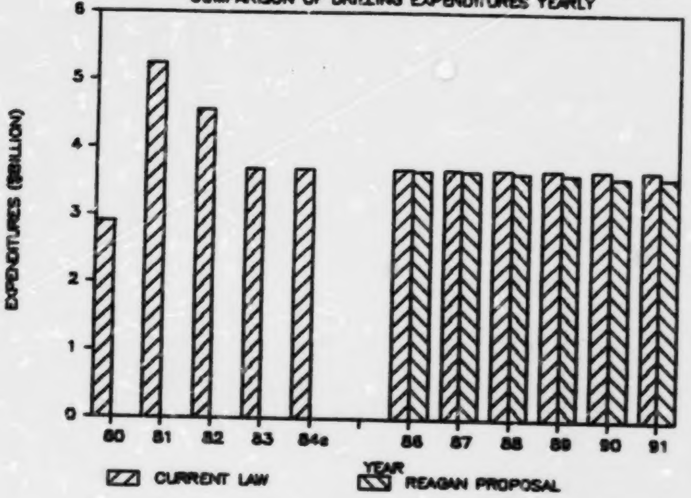
OKLAHOMA

Chart One

IMPACT OF REMOVAL OF % DEPLETION

COMPARISON OF DRILLING EXPENDITURES YEARLY

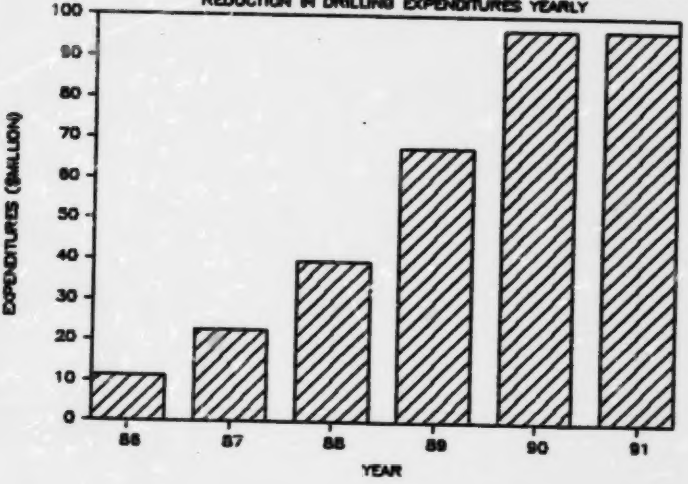


OKLAHOMA

Chart Two

IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN DRILLING EXPENDITURES YEARLY



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OKLAHOMA

Chart Three

IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:

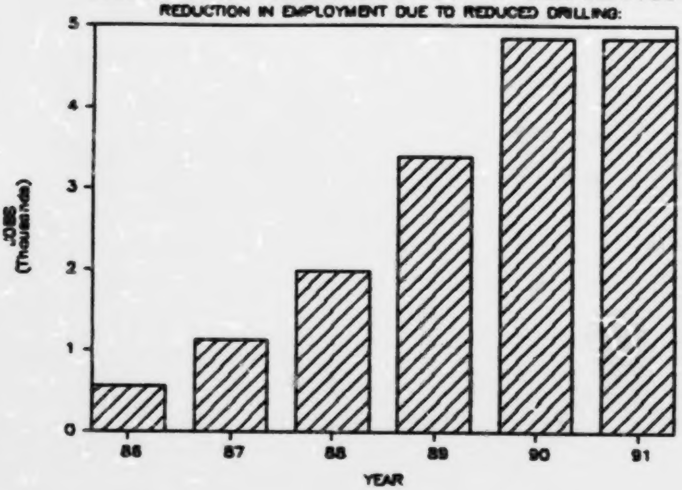
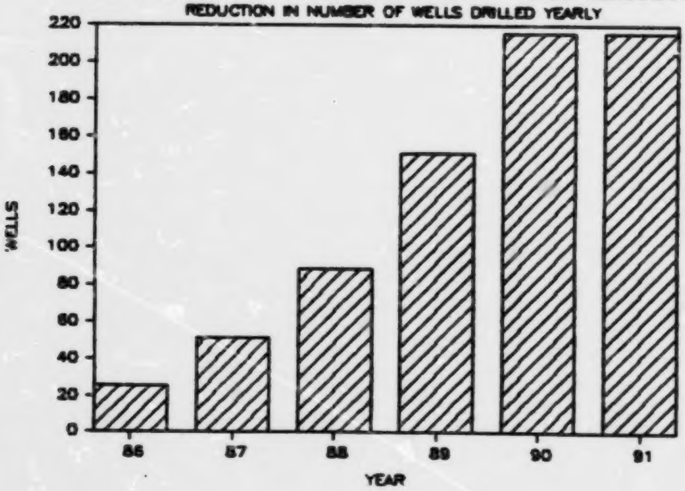


Chart Four

OKLAHOMA

IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN NUMBER OF WELLS DRILLED YEARLY



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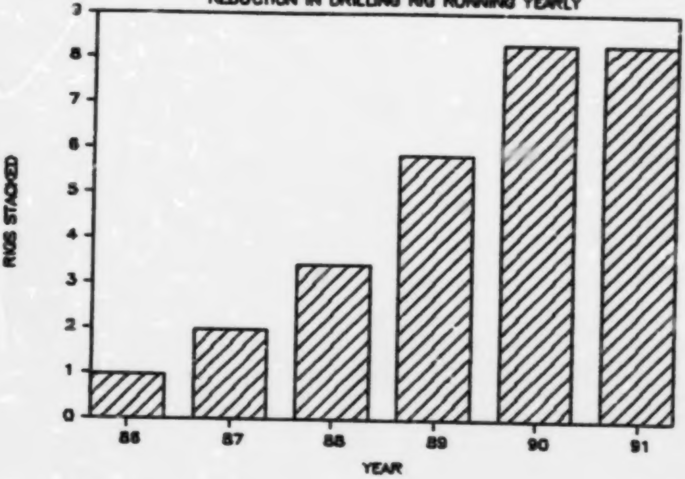
OKLAHOMA

Chart Five

IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN DRILLING RIG RUNNING YEARLY

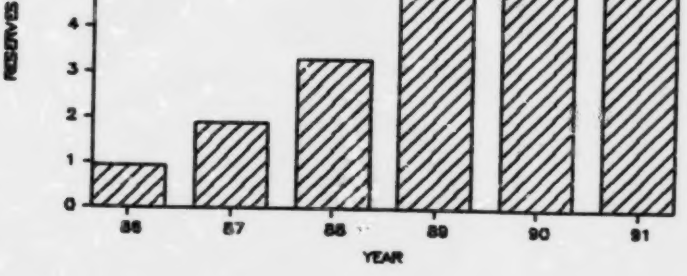


OKLAHOMA

Chart Six

IMPACT OF REMOVAL OF % DEPLETION

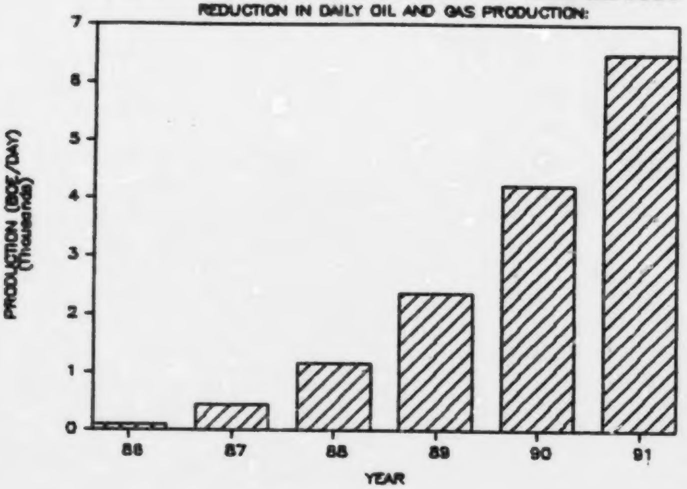
REDUCTION IN RESERVES ADDED AT $12.00 PER BOE:



The RAM Group, Ltd. OKLAHOMA Chart Seven

IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN DAILY OIL AND GAS PRODUCTION:



The RAM Group, Ltd.

Table Three

OKLAHOMA
IMPACT OF REMOVAL OF % DEPLETION
ON ROYALTY OWNERS & WORKING INTEREST OWNERS
(EXCLUDING STRIPPER WELL WORKING INTEREST)

	ROYALTY OWNERS		WORKING INTEREST OWNERS		TOTAL	
YEAR	INCREASED TAX PAYMENTS ($mm)	CUMULATIVE INCREASED TAX PAYMENTS ($mm)	INCREASED TAX PAYMENTS ($mm)	CUMULATIVE INCREASED TAX PAYMENTS ($mm)	INCREASED TAX PAYMENTS ($mm)	CUMULATIVE INCREASED TAX PAYMENTS ($mm)
					$0	$0
1986	$14	$14	$11	$11	$25	$25
1987	$28	$42	$23	$34	$51	$76
1988	$42	$84	$40	$74	$82	$158
1989	$56	$140	$68	$142	$124	$282
1990	$70	$210	$97	$239	$167	$449

ASSUMPTIONS

- ROYALTY AVERAGES ONE-SIXTH (1/6) OF GROSS VALUE AT THE WELL HEAD
- A FIVE YEAR , EQUAL PHASEOUT OF PERCENTAGE DEPLETION ON ALL PRODUCTION EXCEPT INDEPENDENT PRODUCER WORKING INTEREST REVENUES FROM STRIPPER WELLS
- THE VALUE OF OKLAHOMA OIL AND GAS PRODUCTION IS CONSTANT AT $9,585,000,000 PER YEAR, 1986 - 1990.
- STRIPPER WELLS PRODUCE PRODUCTS VALUED AT $2,882,000,000 PER YEAR

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Chart Ten

OKLAHOMA

IMPACT OF REMOVAL OF % DEPLETION

INCREASED TAXES ON WORKING INTERESTS

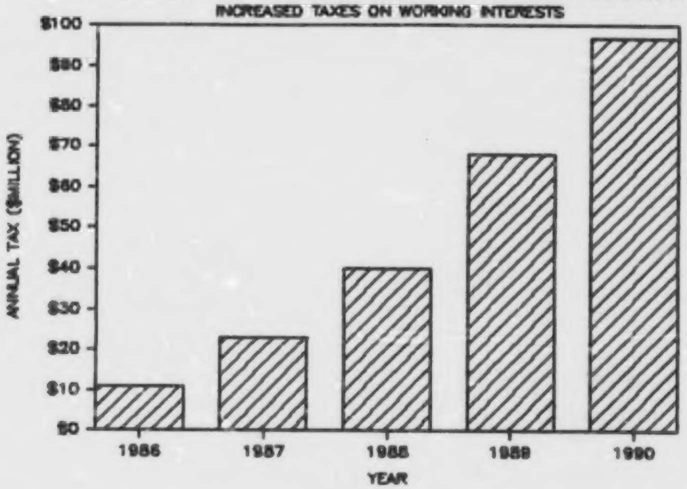

Chart Eleven

OKLAHOMA

IMPACT OF REMOVAL OF % DEPLETION

INCREASED TAXES ON WORKING INTERESTS

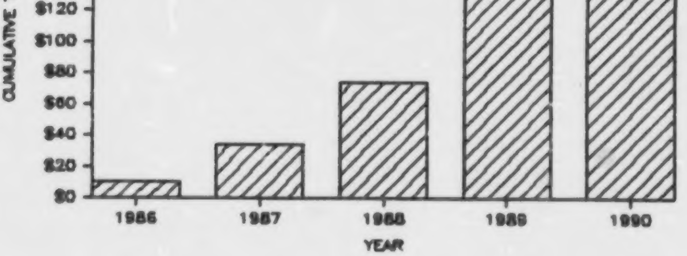

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Chart Twelve

OKLAHOMA

IMPACT OF REMOVAL OF % DEPLETION

INCREASED TAXES ON ALL OWNERS

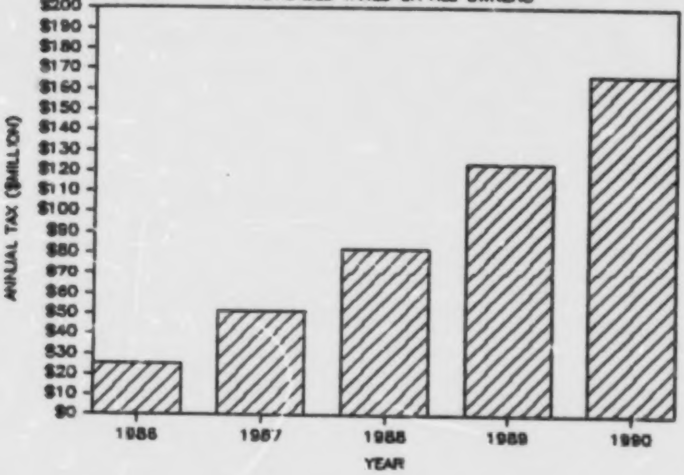

Chart Thirteen

OKLAHOMA

IMPACT OF REMOVAL OF % DEPLETION

INCREASED TAXES ON ALL OWNERS

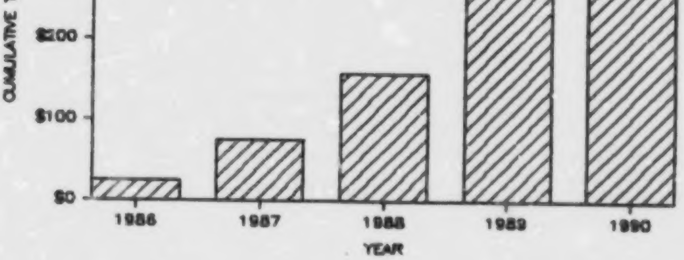

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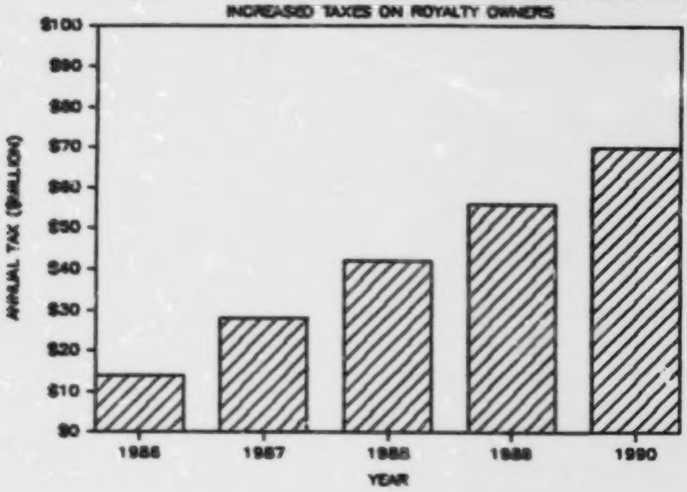
Chart Eight

OKLAHOMA

IMPACT OF REMOVAL OF % DEPLETION

INCREASED TAXES ON ROYALTY OWNERS

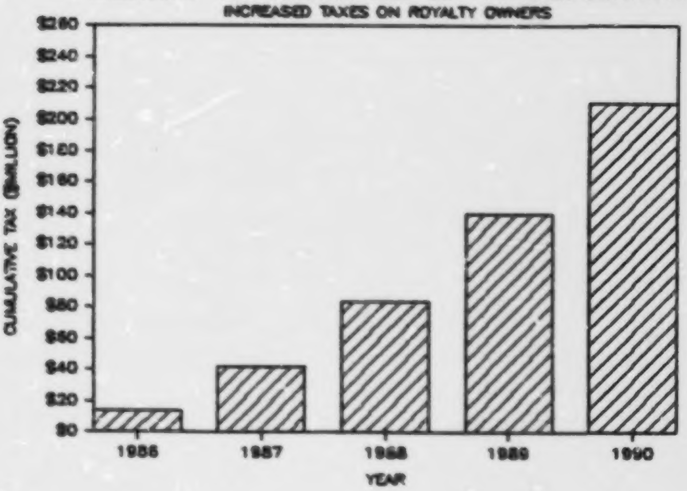


OKLAHOMA

Chart Nine

IMPACT OF REMOVAL OF % DEPLETION

INCREASED TAXES ON ROYALTY OWNERS



The RAM Group, Ltd.

NATIONAL STUDY

NASDEP

IMPACT OF REAGAN TAX PROPOSALS ON PERCENTAGE DEPLETION
1986 - 1991

AVERAGE IMPACT 1986 - 1991	NATIONALLY
REDUCTION IN ANNUAL DRILLING	$930,000,000 Per year
REDUCTION IN JOBS	46,300 Per year
REDUCTION IN NUMBER OF WELLS DRILLED**	3,902 Wells
REDUCTION IN DRILLING RIGS	90 Per year
REDUCTION IN OIL AND GAS RESERVES ADDED**	465,000,000 Boe
REDUCTION IN OIL AND GAS PRODUCTION	41,084 Boe per day
REDUCTION IN ANNUAL OIL AND GAS REVENUES	$304,000,000 Per year
REDUCTION IN SEVERANCE TAX PAYMENTS	$24,000,000 Per year

** Wells drilled and reserves are cumulative 1986 thru 1991.
All others are averages per year.

Basis:

- 1984 average number of drilling rigs:	2,430
- 1984 JAS total drilling expenditures:	$23,104
- 1983 JAS average well cost:	$371,731
- Gross production tax rate:	8.00%

- After 1986 industry expenditures remain at 1986 levels + or - cash flow effects from forecast tax payments.

- Forecast tax payments are as estimated in the Treasury's analysis of the impact of the phaseout of percentage depletion.

- Reserves are added at a $12.00 per barrel oil of equivalent from 1986 - 1991.

- The 1986 - 1991 average wellhead price of oil and gas combined is $19.62 per barrel of oil equivalent.

- A reduction in drilling expenditures of one million dollars results in a loss of 33 jobs (23 direct petroleum industry jobs and 10 indirect jobs).

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REAGANPD

NATIONAL
ANALYSIS OF THE IMPACT OF THE PROPOSED TAX TREATMENT
OF PERCENTAGE DEPLETION ON DRILLING EXPENDITURES,
WELLS DRILLED, EMPLOYMENT & RESERVES FOUND - 1986- 1991

1984 DRILLING RIGS [illegible]
1983 WELL COST $371,731
WPT TAX RATE [illegible]

	CURRENT LAW		REAGAN PROPOSAL								
YEAR	TOTAL CASH AVAILABLE FOR DRILLING ($mm)	J & D DRILLING EXPENDITURES ($mm)	TOTAL CASH AVAILABLE FOR DRILLING ($mm)	J & D DRILLING EXPENDITURES ($mm)	REDUCTION IN TOTAL CASH AVAILABLE FOR DRILLING ($mm)	REDUCTION IN DRILLING EXPENDITURES ($mm)	REDUCTION IN EMPLOYMENT (JOBS)	REDUCTION IN TOTAL WELLS DRILLED	REDUCTION IN DRILLING RIG ACTIVITY	REDUCTION IN RESERVES ADDED (mmBOE)	REDUCTION IN DAILY PRODUCTION (BOE/DAY)
80	[illegible]	[illegible]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81	[illegible]	[illegible]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	[illegible]	[illegible]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83	[illegible]	[illegible]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	[illegible]	[illegible]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
88	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,770	[illegible]	[illegible]	[illegible]
89	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
90	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
91	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.0	[illegible]	0.0	[illegible]	0.0
AVERAGE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AVERAGE IMPACT 1986-91:

REDUCTION IN DRILLING EXPENDITURES YEARLY	[illegible] MILLION
REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING	[illegible] JOBS
REDUCTION IN NUMBER OF WELLS DRILLED YEARLY	[illegible] WELLS
REDUCTION IN DRILLING RIG DEMAND YEARLY	[illegible] RIGS
REDUCTION IN RESERVES ADDED AT [illegible] PER BOE	[illegible] mmBOE
REDUCTION IN DAILY OIL AND GAS PRODUCTION	[illegible] BOE/DAY
REDUCTION IN OIL AND GAS SALES:	[illegible] MILLION
REDUCTION IN STATE WPT COLLECTIONS	[illegible] MILLION

ASSUMPTIONS

INDUSTRY EXPENDITURES ARE REDUCED BY THE INCREASED AMOUNT OF TAXES PAID BY PRODUCERS.
THE INCREASED TAXES PAID ARE AS FORECAST BY THE TREASURY DEPARTMENT'S ANALYSIS
THE REDUCTION IN DRILLING EXPENDITURES ARE EQUAL TO THE INCREASED TAXES PAID AFTER ADJUSTING FOR NON-OPERATOR ROYALTY
1986 AVERAGE WELLHEAD PRICE WAS [illegible]/BOE.
A REDUCTION IN DRILLING EXPENDITURES OF ONE MILLION DOLLARS RESULTS IN A LOSS OF [illegible] JOBS

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51

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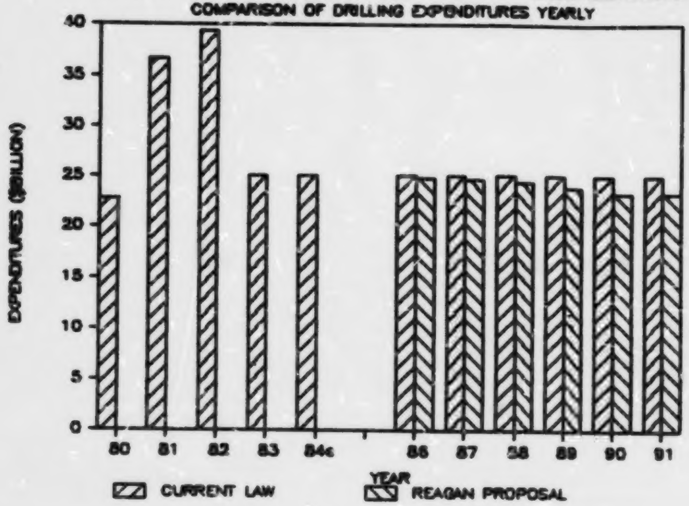
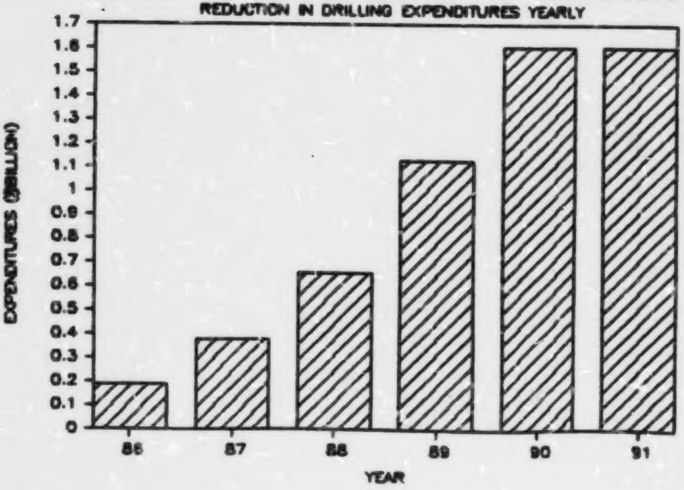
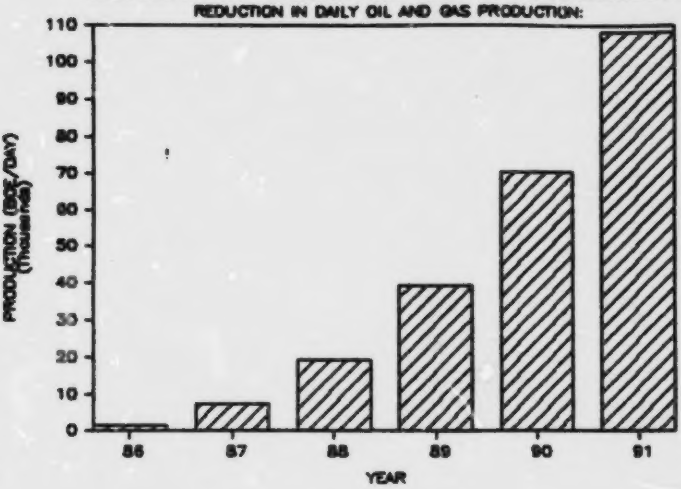

IMPACT OF REMOVAL OF % DEPLETION

COMPARISON OF DRILLING EXPENDITURES YEARLY

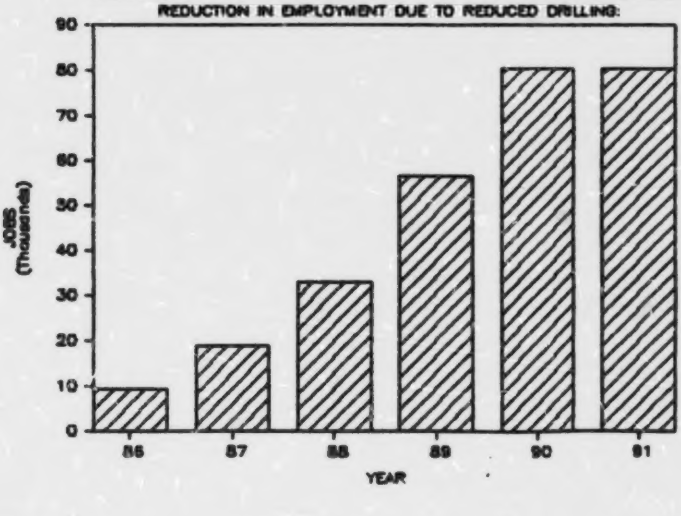

IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN DRILLING EXPENDITURES YEARLY



IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN DAILY OIL AND GAS PRODUCTION:



IMPACT OF REMOVAL OF % DEPLETION

REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:

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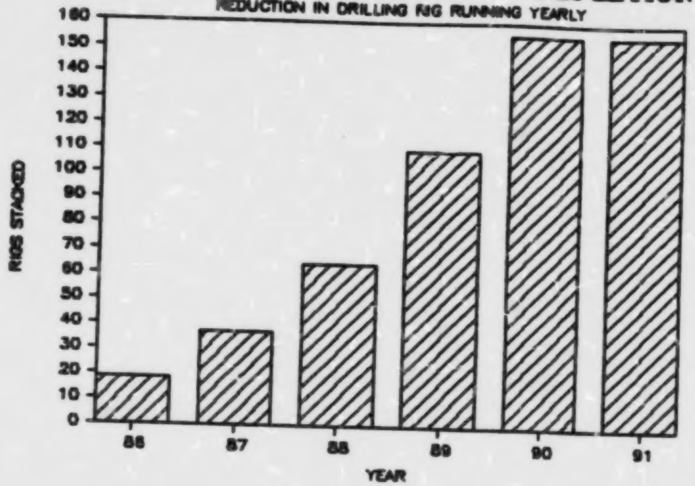
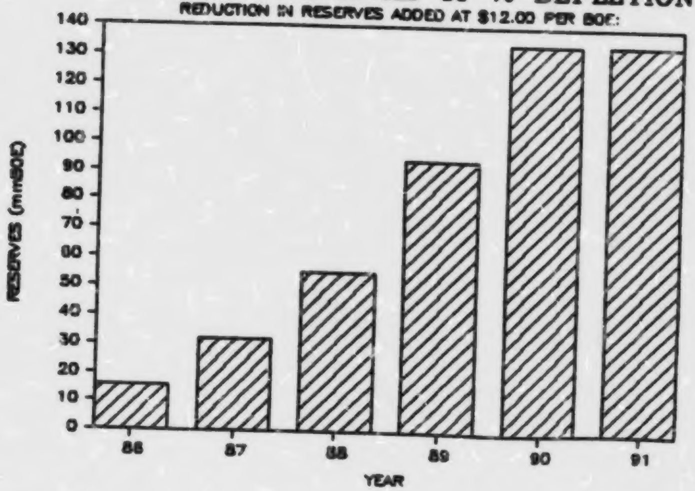
IMPACT OF REMOVAL OF % DEPLETION



IMPACT OF REMOVAL OF % DEPLETION



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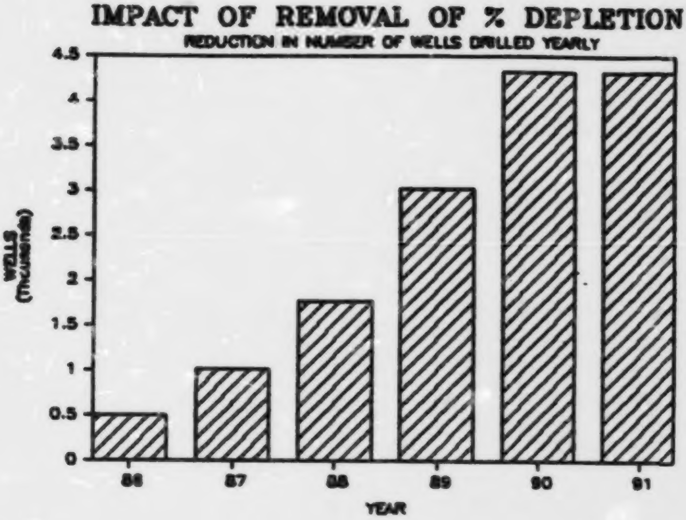
IMPACT OF REMOVAL OF % DEPLETION
REDUCTION IN NUMBER OF WELLS DRILLED YEARLY
WELLS
(Thousands)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
86
87
88
89
90
91
YEAR

05-Jun-85

STATE

ANALYSIS OF THE IMPACT OF THE PROPOSED TAX TREATMENT
OF PERCENTAGE DEPLETION OF DRILLING EXPENDITURES.
WELLS DRILLED, EMPLOYMENT & RESERVES FOUND 1986 - 1991

AVERAGE IMPACT 1986 - 1991

STATE	REDUCTION IN ANNUAL DRILLING EXPENDITURES	REDUCTION IN JOBS	REDUCTION IN ANNUAL NUMBER OF WELLS DRILLED	REDUCTION IN NUMBER OF ACTIVE DRILLING RIGS	REDUCTION IN OIL & GAS RESERVE ADDITIONS (BOE)	REDUCTION IN OIL & GAS PRODUCTION (BOE)	REDUCTION IN OIL & GAS REVENUES	REDUCTION IN OIL & GAS SEVERANCE TAX PAYMENTS
ALABAMA	$5,003,915	220	16	1	3,346,050	356	$3,110,151	$315,033
ALASKA	$100,000,906	6,100	261	9	66,090,790	3,076	$30,651,000	$3,600,000
ARIZONA	$55,673	3	0	0	27,036	3	$17,000	$0
ARKANSAS	$4,311,780	226	12	0	2,253,801	190	$1,020,300	$72,771
CALIFORNIA	$72,302,006	3,610	194	7	36,161,000	3,100	$33,685,630	$1,712,520
COLORADO	$10,012,863	331	28	1	5,300,032	600	$2,303,036	$171,175
FLORIDA	$5,905,063	277	15	1	3,772,331	265	$1,752,000	$116,250
ILLINOIS	$817,870	61	3	0	600,030	30	$330,562	$0
INDIANA	$238,636	12	1	0	110,310	11	$75,668	$770
KANSAS	$11,302,082	560	30	1	5,001,801	675	$3,501,276	$289,006
KENTUCKY	$1,290,280	63	3	0	636,146	35	$307,165	$10,230
LOUISIANA	$203,127,896	12,130	656	26	131,303,982	16,720	$70,000,300	$9,003,300
MARYLAND	$200	0	0	0	103	0	$65	$5
MICHIGAN	$11,112,903	336	30	1	5,330,651	601	$3,913,111	$665,030
MISSISSIPPI	$11,001,237	385	31	1	5,068,610	510	$3,095,910	$330,103
MISSOURI	$0	0	0	0	0	0	$0	$0
MONTANA	$7,137,087	356	16	1	3,570,360	316	$2,303,330	$159,175
NEBRASKA	$710,236	36	2	0	300,037	33	$327,377	$6,981
NEVADA	$138,865	8	0	0	70,623	7	$80,316	$0
NEW MEXICO	$36,162,301	1,707	62	3	17,071,100	1,300	$10,703,081	$713,006
NEW YORK	$600,904	33	1	0	233,053	30	$161,270	$0
NORTH DAKOTA	$13,230,036	661	30	1	6,013,317	900	$6,101,323	$630,006
OHIO	$3,075,880	100	11	0	1,007,006	170	$1,256,053	$0
OKLAHOMA	$55,080,307	2,704	150	5	37,004,106	3,400	$17,067,016	$1,277,310
OREGON	$140	0	0	0	70	0	$66	$3
PENNSYLVANIA	$2,700,760	120	7	0	1,306,350	123	$875,200	$0
SOUTH DAKOTA	$337,760	17	1	0	100,006	15	$186,700	$6,003
TENNESSEE	$160,902	0	0	0	84,855	0	$53,711	$1,006
TEXAS	$301,362,020	14,362	700	20	165,021,316	13,000	$101,070,250	$6,306,355
UTAH	$9,606,406	673	20	1	6,707,300	610	$3,001,006	$13,207
VIRGINIA	$173,331	0	0	0	86,703	0	$30,000	$0
WEST VIRGINIA	$3,031,305	107	11	0	1,003,000	176	$1,242,830	$35,900
WYOMING	$37,096,053	1,035	100	0	10,500,230	1,030	$11,727,001	$710,036
TOTAL	$830,000,000	60,300	2,302	80	600,000,000	61,964	$200,000,000	$34,033,736

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56

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STATE	1983 VALUE CRUDE OIL PRODUCTION	1983 VALUE NATURAL GAS PRODUCTION	1983 TOTAL VALUE	1983 STRIPPER PRODUCTION	1983 AVERAGE CRUDE OIL PRICE	1983 VALUE STRIPPER PRODUCTION	1983 TOTAL VALUE LESS STRIPPER	PERCENT OF UNITED STATES HYDROCARBON VALUE
ALABAMA	$363,692,000	$253,694,000	$617,386,000	173,953	$30 07	$5,100,000	$612,287,331	0 720%
ALASKA	$18,746,554,000	$176,117,000	$18,922,671,000	$0	$17 18	$0	$18,922,671,000	6 077%
ARIZONA	$7,347,000	$284,000	$7,531,000	25,626	$31 00	$794,000	$6,736,504	0 006%
ARKANSAS	$533,050,000	$213,000,000	$746,050,000	7,117,033	$28 26	$201,203,855	$547,566,145	0 649%
CALIFORNIA	$8,733,107,000	$1,237,985,000	$9,971,125,000	53,093,261	$21 56	$1,206,335,006	$8,763,790,000	7 766%
COLORADO	$830,836,000	$552,115,000	$1,382,951,000	3,630,753	$28 91	$104,036,217	$1,278,914,783	1 161%
FLORIDA	$614,101,000	$58,819,000	$672,920,000	$0	$31 10	$0	$672,920,000	0 590%
ILLINOIS	$849,726,000	$2,926,000	$852,666,000	25,600,500	$29 10	$753,306,000	$99,359,550	0 088%
INDIANA	$154,630,000	$349,000	$156,977,000	4,336,304	$29 06	$126,015,319	$30,961,681	0 026%
KANSAS	$2,026,133,000	$696,108,000	$2,722,241,000	48,267,467	$28 44	$1,372,736,153	$1,350,516,887	1 203%
KENTUCKY	$256,295,000	$75,633,000	$331,928,000	5,321,036	$29 60	$179,460,336	$152,467,664	0 135%
LOUISIANA	$16,390,661,000	$13,388,376,000	$29,776,037,000	9,000,000	$30 03	$270,180,000	$29,506,787,000	26 163%
MARYLAND	$0	$35,000	$35,000	$0	$0	$0	$35,000	000%
MICHIGAN	$1,007,618,000	$440,935,000	$1,448,553,000	3,144,030	$31 79	$99,851,783	$1,348,701,219	1 195%
MISSISSIPPI	$881,736,000	$611,574,000	$1,493,310,000	1,288,247	$28 76	$36,410,070	$1,418,886,930	1 257%
MISSOURI	$8,303,000	$0	$8,303,000	270,865	$30 90	$8,303,000	$0	0 000%
MONTANA	$841,600,000	$116,388,000	$957,988,000	3,103,757	$28 80	$89,388,302	$868,599,700	0 770%
NEBRASKA	$102,360,000	$2,637,000	$104,977,000	3,617,077	$28 50	$97,689,783	$97,291,217	0 977%
NEVADA	$19,270,000	$0	$19,270,000	0	$33 00	$0	$19,270,000	0 017%
NEW MEXICO	$2,190,645,000	$2,374,970,000	$4,574,615,000	14,722,251	$29 36	$430,773,064	$4,143,081,936	3 671%
NEW YORK	$27,000,000	$52,304,000	$79,402,000	774,203	$32 30	$25,164,100	$54,237,903	0 048%
NORTH DAKOTA	$1,483,696,000	$166,533,000	$1,650,229,000	1,937,221	$29 27	$66,997,676	$1,603,231,332	1 423%
OHIO	$421,284,000	$356,164,000	$777,628,000	10,679,730	$28 16	$296,900,165	$480,937,033	0 426%
OKLAHOMA	$4,705,761,000	$6,078,775,000	$9,984,536,000	96,639,606	$29 67	$2,881,753,060	$6,702,883,940	6 009%
OREGON	$0	$17,000	$17,000	$0	$0	$0	$17,000	000%
PENNSYLVANIA	$130,309,000	$333,312,000	$463,621,000	3,950,510	$32 30	$127,601,764	$336,019,236	0 298%
SOUTH DAKOTA	$37,307,000	$5,000,000	$42,306,000	42,913	$31 09	$1,400,000	$40,905,112	0 036%
TENNESSEE	$33,703,000	$5,585,000	$39,207,000	303,030	$32 00	$10,677,056	$28,619,944	0 016%
TEXAS	$26,693,561,000	$13,363,437,000	$39,856,998,000	153,666,511	$29 35	$4,510,757,706	$35,346,240,303	31 316%
UTAH	$830,406,000	$337,030,000	$1,167,360,000	561,083	$28 13	$15,360,218	$1,152,205,782	1 021%
VIRGINIA	$2,096,000	$19,668,000	$21,756,000	21,571	$32 25	$603,665	$21,056,335	0 019%
WEST VIRGINIA	$116,373,000	$466,453,000	$575,726,000	3,116,500	$32 60	$101,507,000	$477,126,100	0 423%
WYOMING	$3,216,659,000	$1,474,373,000	$4,691,232,000	6,964,013	$27 18	$188,807,712	$4,502,424,287	3 989%
TOTAL	$82,330,996,000	$43,642,367,000	$125,983,363,000	$462,013,486		$13,116,630,733	$112,866,104,263	100 000%

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57

Ditch Witch

The Charles Machine Works, Inc.
P.O. Box 66/Phone: (405) 336-4402
Perry, Oklahoma 73077

July 12, 1985

Senator Bob Packwood

Chairman

Senate Finance Committee

Washington

Subject: Statement to be included in the printed record of the Senate Finance Committee meeting of July 17, 1985.

From: Phil E. Albertson, Manager of New Products and Applications Planning, The Charles Machine Works, Perry, Oklahoma.

Gentlemen:

The Energy Conservation Tax Credits have fallen far short of fulfilling the original intent of Congress. The major reason is that the energy conservation system that does fulfill that intent was later excluded from qualification. Continuing the Tax Credit without eliminating this tremendously counterproductive discrimination would only add to the tremendous waste of billions of taxpayers' dollars that has already occurred. In fact, it would be much more logical to allow the tax credits to expire and use the savings to reduce the Federal deficit. The availability of tax credits for much less effective, less efficient, and much more costly qualifying systems has retarded the growth of the much more superior systems which cost less to install relative to their proven energy savings.

I have enclosed an illustrated brochure that breifly explains how these systems operate, and shows their preformance results which have been monitored by numerous Universities, Electric Utilities, and Research Laboratories.

These systems can be briefly summarized as follows:

1. The Earth-Coupled Water-Source Heat Pump System

   (a) Uses the earth as a solar collector with water circulating through buried high-strength plastic pipe, widely used for natural gas distribution, to carry 30-50°F heat to a heat pump which raises the temperature of the heat to over 100° for the building requirements. The system is reversed to cool the building and dissipate heat back into the earth.

   (b) Saves 60-70% in heating energy in most areas (for each BTU of electric energy used to run the heat pump, 2 BTU's are absorbed from the earth and all three are delivered to the building); 20-30% in cooling energy. This transfer of renewable energy results in a 300% efficiency.

   (c) Not affected by clouds, darkness, blizzards, etc., because of the relatively mild temperature and the tremendous storage capacity of the earth.

   (d) Can handle 100% of the heating and cooling load, any time needed.

   (e) Natural gas driven units will be available in a few years with savings competitive with the now readily available electric motor driven heat pumps.

   (f) Greatly reduces electric utility peaking problems, and the future need for additional generating capacity. This will also reduce air pollution and acid rain proportionately.

   (g) Approximately 45000 systems have been installed in the past few years in the U.S., Canada, and Northern Europe.

   (h) The $2000-$3000 typical added installed cost compared to traditional systems is paid back by savings in 1 to 3 years except for 3-5 years where natural gas is available at present prices.

(i) About 30,000,000 houses do not have access to natural gas and can save $800-$1500 per year.

(j) Can be easily retrofitted to existing houses using pipe loops in trenches or in vertical drilled holes where area is limited.

(k) Extensive use will drastically reduce oil imports, the threat of OPEC blackmail, and our foreign trade deficit which would not exist without oil imports.

(l) Note the 75% reduction in oil and coal imports that Sweden is achieving largely by the use of earth energy systems without benefit of oil, gas, or coal reserves.

2. The Aire-Wrap^{tm} Earth Temperature Thermal Barrier System

(a) Also uses water circulating through buried pipes.

(b) A heat exchanger and fan are used to circulate air tempered by the earth to reduce the heating and cooling load by approximately 50%.

(c) By using the Aire-Wrap system and the Earth-Coupled Water Source Heat Pump system on the same building, energy savings are increased to 80-85%.

(d) It can be retrofitted when new siding is applied to a building (about 1.3 million per year) as well as easily installed in new houses and commercial buildings.

3. The Earth Storage System

(a) Extensively used in Sweden to store waste heat for use in the winter.

(b) Can be used for seasonal and off-peak storage of cold energy in commercial buildings at a much lower investment than currently used ice storage in tanks.

(c) Requires relatively large earth volume (160 ft cubed) to minimize storage losses. Suitable for commercial buildings or groups of smaller buildings.

(d) The graph at the bottom of the back of the first enclosure dramatically illustrates the results of extensive use of earth energy systems.

Senator McClure, these systems have not had the benefit of extensive publicity and promotion by DOE and consequently are not well known, but they have been thoroughly tested and are being installed in rapidly increasing numbers commercially. You have an excellent opportunity to "snatch VICTORY from the jaws of DEFEAT."

The Earth Coupled Water Source Heat Pump systems will be the subject of a nationwide comprehensive 6-hour satellite video conference sponsored by Oklahoma State University of September 4, 1985, from 9 a.m. to 4 p.m. It will cover all phases for the benefit of the homeowner, designers, and contractors.

If any additional information is needed, please call me at 405-336-4404.

Sincerely,
The Charles Machine Works, Inc.

Phil

Phil Albertson
Manager, New Products and Applications Planning

gl
Enclosures

HEARINGS ON TAX II IMPACT

CONDUCTED BY SEN. DAVID BOREN

Statement of

Harry J. Schafer, Jr.

President ~~Obed, Inc.~~ Exploration Development Co.

Oklahoma City, Oklahoma

NARO Vice-President and

Chairman, NARO Legislative Council

June 14, 1985

Kirkpatrick Center

First, Senator, let me say that in all my life I've only voted for one Democrat. That person was you. It would seem, however, based on what's happened recently -- aside from you -- that I may have made a few mistakes.

However, if we all reflect back a few months, we only had one alternative to go with besides the President. And if that alternative had been chosen, we most likely would have Arabs running the oil and gas fields of Oklahoma today.

My name is Harry J. Schafer, Jr. I live in Oklahoma City and have spent my life in the oil business. I have been active in all the industry professional groups, including the IPAA, until recent years when I elected to work on behalf of helping get a fair deal for the royalty owner.

In the past years I have devoted a great deal of time, working with NARO, trying to get the story of the royalty owners told -- in Washington and to anyone else that would listen.

It is my firm belief that the people of the United States have just declared war on the oil and gas industry and anyone remotely involved with that industry. And that includes, most definitely, the royalty owner. I have heard it night after night on television, as so-called East Coast "experts" have glossed over the fact that the oil industry pays the heaviest tax load in the nation. Instead, they have chosen to shake their heads and talk of the proposed gutting of an indutry and its mineral owners as still allowing too many tax breaks.

I have read all the national publications since the President made his speech, and not a single one defended our industry. Not a single article mentioned that while the President was seeking fair treatment for the nation, he and his advisors set about to kill percentage depletion, a proven and worthwhile mechanism designed and time tested to help a mineral owner protect a portion of a depletable and irreplaceable asset.

I did not hear, in the hours following the President's announcement, cries of concern for the royalty owner except from yourself and those gentlemen here among the oil patch Congressional delegation.

This neglect, I assure you, will long be remembered by the over two-million royalty owners who vote.

Indeed, during the hearings in Washington following the announcement I did not hear one question from the oil delegation that would imply indignation. They, too, I assume, were fearful of their television reputation and of being branded as beholden to the oil interests by their Congressional colleagues.

I am frankly sick of the whole mess and the way we have been sold out by our government and most of our elected leaders. It seems that most of the oil patch delegation has done a pretty bad job of defending any interests except those that are responsible for raising the biggest campaign funds. For that, I salute the producers. I wish we, too, as a group could afford the campaign ante needed to get the White House's attention and favors.

I could invest in any other industry in the United States and be respectfully called a positive factor in this nation's economy. Instead, because my investments have been as a mineral owner, I am subject to abuse from every newspaper and television outlet in the country -- and from the White House that both myself and most other royalty owners chose to support in the recent election.

This state, like it or not, Senator, is indebted to its royalty owner citizens. It is indebted, like it or not, to the production end of the business also, particularly in the bigger cities.

There is hardly a town in this state that does not have a better hospital, a better church or a better park because of donations from royalty owners. There is not -- and I pray there will never be -- an elected official of this state who has run on a ticket of "getting even with the oil industry or the royalty owner."

It has also been royalty income that provided that extra needed cash for the education of thousands of our farm and ranch kids. It has been royalty income that has been dug out to pay the mortgage payments when small businesses and farms have failed during our Dust Bowl and Depression days. It has paid many a medical bill and been used to seek specialists when all medical hope in the rural areas has failed. It has enabled thousands of our elderly to spend their last days in dignity in their home with hired help, instead of being subjected to the indignity of a charity ward in a city far away from old friends and loved ones.

Today it is royalty income that is keeping many small businesses out of the bankruptcy court and many a farm and ranch from posting the "for sale" sign.

I urge you to return to Washington and tell our elected representatives that we have had it up to here. First we suffered under a windfall tax on our so-called "obscene" profits, and now, on its heels, we have been tossed again to the tax wolves. Let them know that we don't want or expect breaks, but simply want to be treated as other citizens. Therefore, consider an alternative, if you should fail in your fight to retain percentage depletion. Simply treat royalty income as a capital gains item and repeal, as promised, the windfall profits tax, which is another Presidential promise now ignored. The tax people know what capital gains means, and if we get hit again, at least we'll go down with the constituents of the Northeast delegation in Congress, who seem to be calling the shots for those of us down here.

STATEMENT FOR THE RECORD RELATIVE TO PRODUCTION TAX CREDITS
SUBMITTED TO U.S. SENATE COMMITTEE ON FINANCE
BY THE GOVERNMENTAL REFUSE COLLECTION AND DISPOSAL ASSOCIATION

This statement is submitted for the record to provide information to the U.S. Senate Committee on Finance. It addresses the issue of the President's proposal to repeal energy credits. Specifically, it addresses the impact that such repeal would have on the control, recovery, and utilization of landfill gas.

The Governmental Refuse Collection and Disposal Association (GRCDA) is a non-profit organization of solid waste management professionals. GRCDA has membership in the U.S., Canada, and ten foreign countries. Seventy percent of our members are from the U.S. and work for local government. Thirty percent of our membership provides equipment, services, and systems to the governmental sectors of solid waste management. Our primary Association objectives are continuing education, career development and the provision of assistance to government and industry involved in municipal solid waste management.

Many of our members own and operate landfills which will in time generate landfill gas. That generation will in time require control, recovery, and utilization. The ability to recover and utilize landfill gas provides a unique opportunity for a partnership between our public and private sector members. In order to successfully and economically recover and utilize landfill gas, however, is strongly dependent upon the availability of the Production Tax Credit (PTC).

The members of our Association, therefore, strongly urge the retention of existing law which provides for production tax credits for the landfill gas recovery industry. These credits are critical to the future of landfill gas collection and clean-up systems and provide for greater public safety from the hazards and environmental pollution which could surround these landfill sites.

Current law provides for a production tax credit (PTC) of up to $3 per barrel of oil equivalent for certain qualifying fuels, including landfill-generated methane gas. The PTC is to be available until 2001 for production from domestic facilities placed in service before 1990. It is phased out as the price of crude oil rises from $23.50 to $29.50 (indexed). The Department of the Treasury has recommended that the PTC be terminated over a two-step process. The PTC is essential to make landfill recovery projects economically viable and we believe that the continuation of the PTC for landfill-generated methane gas is consistent with long-term financial planning for the nation.

The landfill methane gas recovery process consists of collection systems and processing plants which collect and utilize landfill gases resulting from the natural decomposition of solid waste. These gases can contribute to pollution, smog, destruction of vegetation, odor, explosions and fire. In many landfills, landfill gas occurs in large quantities and can be collected, processed and used to generate electricity, or as a pipeline quality gas for home and industrial uses. This is a domestic source of energy available now which can offset foreign imports. The utilization of landfill gas achieves two purposes therefore; the provision of a domestic source of energy and protection of the environment.

The full energy potential of this industry cannot be ignored. (See attachment.) Landfill methane recovery depends on capital-intensive new technology, however. As Congress recognized in 1980 when the PTC became law, "some subsidy is needed to encourage these industries to develop to the stage where they can be competitive with conventional fuels. The information gained from the initial efforts at producing these energy sources will be of benefit to the entire economy.... If the [production tax] credit leads to the development of these alternative sources, it would make a major contribution to reducing our dependency on imported energy," thereby increasing our national security. [S. Rept. No. 394, 96th Cong., 1st Sess. 87 (1979), 1980-3 C.B. 205.]

The Department of the Treasury now proposes to eliminate the PTC, contending that the energy tax credits, including the PTC, implement "questionnable energy policies" and add to the complexity of our tax laws and impose additional administrative burdens upon the IRS. Treasury also contends that the residential energy credits favor middle- and upper/middle-income households and that many conservation improvements "subsidized by residential energy credits would have been made without the tax credits because of decontrol and the increase in world oil prices in 1979." The President's Tax Proposals to the Congress for Fairness, Growth and Simplicity, p. 224-227 (May 29, 1985).

Where landfill gas recovery and utilization is concerned none of these contentions are supportable. First, the alleged administrative burden relates to individual income tax returns and the residential energy credits, not to corporate income tax returns. Second, the PTC is a critical factor in the economic analysis preparatory to undertaking a landfill gas recovery project. It is a credit against current taxes that cannot be carried forward or backward. Third, since decontrol of oil prices was anticipated when Congress enacted the PTC, this credit phases out as prices rise. [S. Rept. No. 394, 96th Congr., 1st Sess. (1979), 1980-3 C.B. 142.] Fourth, the PTC for landfill gas recovery and utilization benefits not only those whose households are served by the fuel resulting from the process, but also those who may be impacted by landfill gas migrating from landfills adjacent to urban areas. Additionally, many future landfill gas recovery projects have been planned and constructed based upon the expected availability of this credit, and it would be unfair to disrupt such projects and investments.

The reasons for the continuation of the PTC today are stronger than those which caused its enactment. Fostering reliable domestic energy sources, which would not be vulnerable to diminution in the case of foreign turmoil, was and remains vital to national security. The societal interest in encouraging development of landfill gas recovery technology remains high. Preventing landfill explosions and dissipation of pollutants by extracting gas from landfills fulfills important environmental and societal goals, giving landfill gas extraction a value beyond its ability to substitute domestic energy sources for foreign. In contrast, we should note that Treasury's proposal with respect to the energy tax credits would reduce -- not increase -- income tax revenues by $1,800,000,000 and therefore would not increase overall net revenues. [See The President's Tax Proposals to the Congress for Fairness, Growth and Simplicity; (May 29, 1985).]

The curtailment of the PTC for landfill gas recovery facilities has been suggested at the very time that stricter laws are being written to regulate these gas emissions. The necessity for control of landfill gas in our urban environments is essential to public health and environmental quality. To accomplish this purpose without burdonsome increased cost for the public requires that this gas be recovered and utilized. To do so required the availability of the PTC. In an era of lower energy prices, the economics of the majority of such systems are so troublesome that entire areas of the United States must be neglected even by those innovative enough to undertake the risks associated with this new industry. To encourage this trend though changes in the tax laws is poor policy.

DATA: U.S. LANDFILLS AND LANDFILL GAS RECOVERY

Approximate number of U.S. landfills: 15,577

Approximate number of currently developable landfills: 1,964
(Note: As landfill methane recovery technology improves, the number of developable sites will increase.)

Estimated tonnage of current developable sites: 3 billion tons of refuse.

Estimated that one ton of refuse contains about 1,000 pounds of cellulose which can yield approximately 6,000 cubic feet of methane and an equal volume of carbon dioxide.

One million tons of refuse can generate approximately 1,848,000 MMBtu's (million British thermal units), the equivalent of approximately 319,000 barrels of oil.

There are approximately 2.3 billion barrels of oil equivalent that can be produced from 3 billion tons of refuse.

Emissions from the estimated 1,964 currently developable sites are estimated as the following:

- 1.37 billion tons of total emissions
- 6.2 million tons of non-methane hydrocarbon emissions
- 1.2 million tons of reactive organic compounds
- 34.6 thousand tons of H_2S

Current collection efficiency range from 40 - 80%.

1984 American Gas Association Supply Committee has estimated as much as 200 billion cubic feet of natural gas equivalent could be produced annually from the renewable sources (primarily landfills) by the year 2000.

UNITED STATES SENATE
COMMITTEE ON FINANCE

IMPACT OF PRESIDENT REAGAN'S
TAX REFORM PROPOSAL ON THE
NATION'S ENERGY INDUSTRY

JULY 17, 1985

COMMENTS OF THE OKLAHOMA INDEPENDENT PETROLEUM ASSOCIATION

The Oklahoma Independent Petroleum Association (OIPA) is based in Tulsa, Oklahoma. Formed in 1955, OIPA represents independent producers and operators which explore for, develop and produce crude oil and natural gas in the State of Oklahoma. The current membership in OIPA exceeds 1,500. Attached to these comments is a list of the Association's officers and directors each of whom may be contacted directly or through the OIPA offices at 124 East Fourth Street, Tulsa, Oklahoma 74105, (918) 584-1233. In response to the question posed by the United States Senate Committee on Finance, OIPA respectfully submits the following comments.

I. INTRODUCTION

The Oklahoma Independent Petroleum Association (OIPA) is concerned exclusively with the aspect of proposed reforms of those U.S. tax laws applicable to the normal operations of independent crude oil and natural gas companies. While individual members may be concerned with other proposed reforms, OIPA does not take issue with the overall intent to revise the U.S. Tax Code to simplify the highly complex process of accounting, filing and paying taxes and to lower, where possible, the tax burden of individuals and corporations in an effort to deal with the fiscal crises confronting our nation today. OIPA represents a special interest group. However, it is not OIPA's attitude that so long as the independent industry is protected from reform, whatever happens to other industries is irrelevant. Further, it is not OIPA's position the independent petroleum industry should not pay its fair share of taxes to contribute to a quality of life for which America has become known. However, OIPA is staunchly opposed to any reforms which are suggested only for the sake of reform; opposed to making a single change in any law only because other laws are being changed.

When measured against the stated reasons and goals for comprehensive tax reform, those reforms proposed specifically for the U.S. petroleum industry obviously fail to achieve simplicity and, more importantly, will fail to contribute to the improvement of the nation's fiscal condition. To the contrary, the reforms ultimately will harm, possibly irreparably, an industry vital to the nation's welfare in terms of jobs, tax revenue, energy sufficiency and security. It is for these reasons OIPA is opposed to all proposed reforms of the petroleum industry tax laws.

II. THE INDEPENDENT OIL AND GAS INDUSTRY

Drilling activity in the U.S. is governed mainly by the availability of economically attractive prospects and access to the capital required to develop those prospects. Since many oil companies typically invest all their cash flow, oil field activity frequently is estimated on the basis of expected changes in cash flow. Unfortunately, history shows proportional changes only when there are comparatively minor changes in oil field economics.

For example, during the recent drilling boom and subsequent slump-- both major changes in oil field economics-- the change in drilling expenditures increased and decreased, respectively, in amounts far greater than accounted for by changes in cash flow. Spending by outside investors in 1982 surged to $11.7 billion, or 29.1 percent of total oil field spending, declining thereafter to an estimated $1.5 billion, or only 7.2 percent of total oil field spending in 1984. Spending by outside investors shows greater sensitivity to expected profitability than to industry cash flow.

Additionally, the recent drop in spending by outside investors was motivated by a reduction in the maximum tax rate from 70 percent to 50 percent. The drop in the marginal tax rate discouraged investment by individuals who were willing to share some of the inordinately high risk unique to the petroleum industry. The recent drop in spending by both independents and outside investors unquestionably came about, to a large degree, because a reduction of the marginal tax rate lessened the need for investment in tax efficient programs.

Outside investment is attracted by the potential benefit, some of which is provided by the industry's tax treatment, such as the allowed deduction for Intangible Drilling Costs (IDC) and the allowed deduction of the Percentage Depletion Allowance. While some call them "special treatments," they, in actuality, are treatments which address unique aspects of the oil and gas industry. These aspects have been acknowledged for more than 70 years by the federal government by enactment of the treatments in one form or another.

Historically, independent oil and gas producers accounted for roughly 50 percent of total spending for domestic exploration and development. During the latest industry boom, it reached as high as 60 percent. It is important to keep in mind independents, for the past decade, have averaged a reinvestment rate of 108 percent of gross revenues annually in new exploration and development. Overall, expenditures for drilling by independents have averaged more than 65 percent of our exploration and development spending. During the boom, 70 percent. In other words, independents allocate a greater portion of exploration and development expenditures for drilling than the larger, integrated companies (referred to as "majors".) Even with the recent slump, independents continue to account for 84 percent to 89 percent of the total wells drilled and more than 88 percent of all exploratory wells which are the high-risk wildcat wells used to discover new fields. Independents are more inclined to drill the less expensive, smaller producing wells. This means the all-important cash and profitability of each well is critical because the margin is hundreds or thousands of dollars, not millions of dollars. Nevertheless, independents account for a majority of the oil and gas discovered in the U.S.

Independents show a greater focus on development drilling than do the majors and have been able to boost oil production over the past five years at an average annual rate of 1.5 percent, whereas the majors have experienced a decline in oil production averaging 0.4 percent the last six years. For natural gas, independents have generally been able to sustain production (or at least production capacity), whereas the majors have seen a decline in production capacity averaging three percent to four percent annually. Although independents recently have shown a tilt toward oil drilling, the contribution of the independents toward maintaining U.S. gas deliverability should not be underestimated. Moreover, whereas a decline in U.S. oil production capacity can be offset by increasing oil imports, there is a practical limit to the availability of imported gas which translates into gas curtailments should domestic production capacity drop as expected under the proposed reforms.

Of the total U.S. supply of crude oil-- 11 million barrels per day-- in 1984, independents produced five million barrels per day. However, total consumption averaged 15.7 million barrels per day, a shortfall of 4.7 million barrels per day, or 29.9 percent, which had to be provided from foreign imports. The 4.7 million barrels per day in 1984 definitely was an improvement over the 6.4 million barrels per day which were imported in 1980, but represented a five percent increase over 1983. Independents produced 10.3 trillion cubic feet of gas in 1984 out of the total domestic supply of 16.7 trillion cubic feet. Total consumption was 17.5 trillion cubic feet, or a shortfall of 800 billion cubic feet.

III. EFFECTS OF PROPOSED REFORMS

Taking into consideration those tax treatments which, under the proposal, would be reformed, and those which would not, the following scenario would be inescapable:

1. Lower tax rates will decrease the search for tax efficient investments; the amount of dollars available from outside investors and the industry will be smaller.

2. The producer, already experiencing lower prices at the wellhead, still is subject to the Windfall Profit Tax. Even though the producer may lose money, he still is subject to the tax.

3. The producer would be subject to the new corporate minimum tax on the deduction for IDCs.

4. In searching for new prospects, the producer probably will have to pay higher royalties because royalty owners will lose their deduction for percentage depletion.

5. The producer will have lost the Investment Tax Credit (ITC).

6. If legal and authorized accelerated depreciation deductions exceeded $400,000 between 1980 and 1986, the producer will have to "recapture" and pay tax on 40 percent of the excess over a straight-line amortization, thus penalizing large, capital intensive businesses for responding to incentives to expand the economy.

7. The producer, royalty owners and other investors still can deduct for dry holes, and the treatment for limited partners is unchanged.

8. The producer, as a company and an individual, may pay less tax, especially if he does not drill, but in all likelihood, will pay more. Regardless, he will have less revenue on which to pay taxes and with which to drill new wells.

9. The producer will not be able to go to banks to borrow money he no longer can raise through outside investors. Thus, he will drill fewer wells, have less cash flow and have even less to reinvest for further exploration and production.

10. The U.S. will be left with fewer proved, developed reserves, higher unemployment and a critical energy supply situation which, inarguably, will place national security in peril.

IV. POSITION OF THE OKLAHOMA INDEPENDENT PETROLEUM ASSOCIATION

OIPA believes the general welfare of the State of Oklahoma and the nation's long-term security would be better served by Congress retaining the current law with respect to petroleum taxation. Currently, the petroleum industry pays a disproportionate share of taxes when compared to other industries. According to a Joint Committee on Taxation survey, all industries had an effective annual tax rate of 18 percent (1980-83). However, the petroleum industry, standing alone, had an effective rate of 23 percent. If the Windfall Profit Tax is considered, the petroleum industry's effective rate increased to 43 percent. Hundreds of companies have taken 1983 and earlier tax returns and refigured them using the proposed reforms. Even with the reduction of the maximum tax rate, the overwhelming majority of companies would pay higher taxes. With an effective tax rate four percent to 25 percent higher than all other industries, no increase is justifiable. The current law should be retained and the Windfall Profit Tax should be repealed.

IDCs represent nonrecoverable costs of drilling a well and should continue to be expensed in the year incurred. Such treatment is consistent with unrecoverable business expenses utilized by other businesses. There should be full expensing of IDCs without treatment as a preferential tax item.

Treatment of the gain on sale of oil and gas property should not be treated at ordinary income rates. The benefit derived by an oil and gas working interest owner from indexing the basis of the leasehold does not properly adjust his interest for the effects of inflation compared to the benefit indexing provides owners of other assets. This provision would seriously hamper and inhibit trading and sales of producing properties. Major companies would be inclined to plug marginal properties instead of selling them. Independents could not afford to sell properties and be taxed under ordinary income rates. This proposed reform would accelerate the premature plugging of wells resulting in losses of oil and gas revenues and corresponding tax revenue. Capital gain treatment on sales of oil and gas properties should be allowed and the law regarding IDC recapture should be revised.

Percentage depletion must be maintained for all wells-- stripper wells and non-stripper wells-- up to 1,000 barrels per day. Excess over cost basis should not be an item of tax preference. Depletion is a necessary and vital part of the oil and gas industry since it represents a method of recouping capital devoted to unsuccessful projects. The proposal to calculate percentage depletion on stripper properties on a per well basis instead of a lease basis is unworkable and burdensome at best. To be required to monitor and test each well, separately account for production and calculate depreciation separately would be overly expensive and counterproductive for independents and cannot be considered simplification. The present law concerning percentage depletion and cost depletion must be maintained.

The proposed tax on excess depreciation deductions claimed between 1980 and 1986 is retroactive and excessive. Legitimate business decisions, contracts and purchases were made in good faith in accordance with existing law. Now, according to the reforms, the independent is to be penalized-- taxed-- for doing what the law allowed. The current law should not be changed; depreciation of lease and well equipment should be calculated on the Accelerated Cost Recovery System (ACRS). Further, the current option to elect cash or accrual methods of accounting should be retained.

Approximately 50 percent of a well's cost is in the equipment. With a 10 percent ITC, only five percent of the total well cost is a tax credit. Considering the risks associated with the oil and gas industry, the ITC is a very small tax credit which should be continued as an incentive for making capital expenditures.

V. CONCLUSION

A few, simple questions about the proposed petroleum industry tax reforms should clarify why none should be enacted. 1) Will the industry pay more taxes even though marginal tax rates will be lowered? Yes. 2) Will there be a decrease in vital outside investment because of a loss of benefits commensurate with the risks associated with the oil and gas industry? Yes. 3) Will there be a decrease in exploration for new domestic reserves? Yes. 4) Will there be fewer jobs (increased unemployment) and lower state and federal tax revenue? Yes. 5) Will the U.S. be forced to increase foreign imports of crude oil from the unstable Middle East, and will increased imports widen the trade deficit and worsen the federal budget deficit? Yes. 6) Will the U.S. be vulnerable to interruptions of foreign supplies; could security be breached? Yes. 7) Is there one positive aspect-- one benefit to the nation-- of the proposed reforms? No.

It seems painfully obvious the belief the petroleum industry no longer needs unique or differential tax treatment is held by people handicapped by a feeble memory further worsened by myopia. They have forgotten the early 1970s when the U.S. was placed at the mercy of the petroleum exporting countries in the Middle East; they have forgotten the late 1970s when schools and factories were shut down because not enough gas could be delivered for heat and fuel; and they do not recall history which documents the cyclical nature of the petroleum industry--shortage, surplus, shortage. We have been through the shortages of oil and gas, now there are surpluses. Not to see or expect shortages in the future, especially if the current tax treatment is not preserved, is to ignore history and beg for trouble.

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As of July 1, 1985

OKLAHOMA
Farmers Union
THE VOICE OF
THE FAMILY FARMER

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STATEMENT BY J. D. FLEMING
PUBLIC HEARING
BY
U. S. SENATOR DAVID BOREN
JUNE 14, 1985
KIRKPATRICK CENTER, OKLAHOMA CITY, OKLAHOMA
REGARDING
IMPACT OF ADMINISTRATION'S PROPOSED
TAX REFORM ON ROYALTY OWNERS

I am J. D. Fleming, Director of Legislative Services, Oklahoma Farmers Union. Oklahoma Farmers Union is a general farm organization with approximately 100,000 members headquartered at 1141 West Sheridan, Oklahoma City, Oklahoma, mailing address Box 24000, Oklahoma City, Oklahoma 73124.

We wish to express appreciation for you holding this hearing in Oklahoma City today. The subject is extremely important to the mineral owners of this state. It is understood the depletion allowance is to be phased out over a five-year period. However, the depletion allowance is to be retained for oil well producers of wells having 10 barrels or less daily capacity.

Simply stated Oklahoma Farmers Union's position is that "we oppose the Administration's proposed tax changes in regard to the oil and gas industry."

The depletion allowance has long been an established feature in the tax code at the state and federal levels. The mineral rights and the depletion allowance have a major influence on land values. Should the depletion allowance be discontinued it will have an immediate effect on the already depressed land values. There is no question that the mineral rights add to property value. There are instances of land now being sold with the mineral rights. The only reason is to enhance its sale value.

Oklahoma Farmers Union favors retaining the depletion allowance and intangible drilling cost deductions for all oil and gas producers and mineral owners. The case has been made for the United States to become more self sufficient in the production of gas and oil. Any reasonable person will readily conclude that discontinuance of these allowances will discourage production.

It would also be logical to a reasonable person that if the depletion allowance is continued for the producers of stripper wells it should also be continued for the mineral owners. To do otherwise is entirely arbitrary.

There could be method in such madness in order to divide or splinter the various segments of the industry. Having created internal warfare the depletion allowance and tangible drilling cost credits could then more easily be completely eliminated.

Athletes receive what is the equivalent of a depletion allowance, due to the short time their abilities can be sustained at peak efficiency. We take no exception to athletes having and retaining this provision in the tax code.

In conclusion it is repeated, that Oklahoma Farmers Union favors retaining the depletion allowance and the intangible drilling cost deduction features of the present law. Thank you for having this opportunity to express our views.

Oklahoma Mineral Owners Association, Inc.
722 Maple Drive
Weatherford, Oklahoma 73096

June 14, 1985

TO: SENATOR DAVID BOREN, REPRESENTATIVE WES WATKINS, REPRESENTATIVE MIKE SYNAR

FROM: TERRY SHINN, PRESIDENT OF OKLAHOMA MINERAL OWNERS ASSOCIATION, INC.

President Reagan's Tax Plan is unfair to Oklahoma Royalty Owners.

President Reagan's proposed Tax Plan will cause thousands of financially straped rural Oklahomans to pay higher taxes - while the vast majority of wealthy Americans will pay less.

President Reagan himself reportedly will receive $28,000 in tax relief, meaning he will receive more in tax benefits than many Oklahoma farmers earn from $2.90 wheat and similar agricultural products.

Oklahoma rural communities, businesses and banks are on the ropes already facing loss of revenue from depressed agricultural income. Land and mineral values have been declining for over three years and will continue to decline until the productivity of the land at depressed commodity prices will retire the debt required to purchase it.

In a word, our rural economy situation is grim, very grim. I cannot develop any probable scenario that avoids a huge loss of wealth. Nine million in 1986 and up to 135.0 million over the next five years.

All Oklahomans will feel the effect of this unfair plan.

Prolonged unfairness by our leaders causes people to lose confidence in themselves, their government leaders and their nation. This potential loss in spirit and vitality concerns me more than the certain loss of wealth. Wealth is much less precious and much easier to rebuild.

DEPLETION ALLOWANCE

I-1. Nature

In General, depletion may be stated to be the exhaustion of oil and gas reserves by the drilling of wells and the resulting production therefrom. In the field of federal income taxation, it is a deduction from gross income provided by the code to compensate for the taxpayer's capital diminution brought about by production.[1]

I-2. To whom allowable

Annual depletion deductions are allowed only to the owner of an economic interest in mineral deposits. An economic interest is possessed in every case in which the taxpayer has acquired by investment any interest in mineral in place and secures, by any form of legal relationship, income derived from the extraction of the mineral to which he must look for a return of his capital.[1]

The gross sales for all Oil Companies and Royalty Owners in the State of Oklahoma was approximately 10.0 billion in Oil and Gas Revenues for the fiscal year of 1986.

10.0 billion x 15% $1,500,000,000	Oklahoma Revenues from Oil and Gas sales - Average Royalty share from lease Royalty Owners Share - Farmers, Ranchers and Rural Communities
1.5 billion x 3% $45,000,000,000 Micro tax rate x 20%	Reduction from 15% to 12% first year Million in losses of tax deductions to Oklahomans 9.0 million cash cost to Oklahoma Royalty Owners calendar year 1986
1.5 billion x 6% $90,000,000,000 Micro tax rate x 20%	Reduction from 15% to 9% second year Million in losses of tax deductions to Oklahomans 18.0 million cash cost for calendar year 1987
1.5 billion x 9% $135,000,000,000 Micro tax rate x 20%	Reduction form 15% to 6% third year Million in losses of tax deductions to Oklahomans 27.0 million cash cost for calendar year 1988
1.5 billion x 12% $180,000,000,000 Micro tax rate x 20%	Reduction from 15% to 3% fourth year Million on losses of tax deductions to Oklahomans 36.0 million cash cost for calendar year 1989
1.5 billion x 15% $225,000,000,000 Micro tax rate x 20%	Reduction from 15% to 0% fifth year Million in losses of tax deductions to Oklahomans 45.0 Million cash cost for calendar year 1990

135.0 million cash cost for the next five years.

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[1] Miller's Oil and Gas Federal Income Taxation

Senator BOREN. Even though that was at the height of the wheat harvest, which makes it very inconvenient for those in agriculture who are also the primary makeup of royalty owners in a State like Oklahoma, we had over 500 people travel from all over the State to attend this field meeting. At that meeting it was brought out that 73 percent of the royalty owners in Oklahoma are over 61 years of age. The average royalty check in Oklahoma is less than $200. Nearly 30 percent of royalty owners are widows; 12 percent are disabled; 5 percent live in nursing homes or health care facilities. And I just don't see anything fair and equitable about a tax that singles them out for an additional burden, a $210 million burden, that they do not have to share.

But also, I would like to ask, Mr. Chairman, that I might submit for the record the testimony that I received at that meeting from Mr. Jim Stafford, the executive director of the National Association of Royalty Owners, and I would urge my colleagues on the committee to consider carefully Mr. Stafford's proposal to treat oil and gas royalties as capital gains as opposed to their current tax treatment. I think my colleagues will find his comments both informative and interesting.

[Mr. Stafford's statement follows:]

HEARINGS ON TAX II IMPACT
CONDUCTED BY SEN. DAVID BOREN

Statement of
Jim Stafford
Executive Director
of the
National Association of
Royalty Owners, Inc.
(statistical collaboration with
Mary Badgett, CPA, Lubbock, Texas;
Jon Stephenson, CPA, Ada, Okla.;
Andy Fowler, CPA, Ada, Okla., and
the Oklahoma Corporation Commission.)

June 14, 1985 Kirkpatrick Center

Senator Boren, I am Jim Stafford. I am executive director of the National Association of Royalty Owners, which is based in Ada, Okla., on the southern outskirts of Seminole. NARO currently numbers 5,000 members in 50 states, and represent by affiliation, an additional 39,000 associte members who are linked to county, regional and state mineral and royalty owner groups of the nation.

Nearly five years ago to the day, I stood before you and Senator Bob Dole to plead the case of the royalty owner after another president had just signed into law the most savage tax attack ever made upon any single group in the history of our nation.

That bill of course was the windfall profits tax. The royalty owners of this nation will never forget the work of you and your staff on our behalf in helping us get the impact of that tax diminished. And I hope you will continue to support our fight to get it eradicated for our sector of the business.

Today, however, I see an equally unfair attack on the incomes of our nation's 2.5 million royalty owners. What makes this proposal, which would kill percentage depletion, even more unfair, however, is the fact that since Mr. Carter signed that mistake into law, we've learned a lot of facts about royalty ownership. These facts alone should have stopped any decision by our government to again seek us out as tax victims.

As you so well know, the hands of our Congressional delegation back five years ago were largely tied in trying to keep us out of the WPT tax decision. You did not know who we were, what was the level of our average income, our average age, how many there were of us, or any of the facts needed to defend our existence. That is not true today.

These facts in brief indicated that a royalty owner is more likely 75 years of age than 45, and more interested in survival and medical bills than a vacation outside the state. It indicates that royalty income is more likely used to pay off the mortgage or loan on the farm or ranch than to plow into stocks and bonds. It indicates that nearly 30 percent are widows, 12 percent disabled, and 5 percent in health care facilities instead of in retirement homes on a lake. Fully 73 percent, incidentally, are over 61, and the average run check in Oklahoma is under $200. This data also clearly indicates that far less than ten percent have incomes in excess of that pittance allowed a U.S. Senator, which I for one do not begrudge.

The National Association of Royalty Owners was largely formed in answer to these critically needed facts. Your office and ours, jointly, assembled the first such data about royalty ownership ever pulled together in the nation's history. Those facts have stood the scrutiny of our govermental critics and in the past five years have been endorsed by many with access to far more facts than they were then willing to divulge whether to NARO, to you or to our government.

Today, it seems, we face a different challenge by an equally insensitive Administration as in 1980.

Rather than telling us, as in 1979 and 1980, that their tax, the WPT, was going to give birth to energy independence, which it did not, the current president is telling us that his new tax is aimed at fairness, simplicity and equity, which it is not! In 1979, as you remember, we, the royalty owners, ended up the chief victim instead of Exxon, which was what the whole mess was supposedly about.

From looking at all this "fairness and equity" business, it looks like we're once again being led to the economic slaughterhouse. And once again, fully 75% of those about to be hit have no idea what's about to happen. The media and Congress have simply ignored it and swept it under the rug.

First, there can be nothing "fair or equitable" about any tax which singles out one group of individuals to be the sacrificial lamb for an industry that has become a one-word national symbol for greed, avarice and monopoly. We have also been told, in the fine print of our President's tax message, that we are not part of the nation's energy equation, and we've been reminded by another Senator that we should be grateful for what breaks we still have, which I consider zero.

The Treasury Secretary has also called us non-productive and, earlier, the Budget Director said most of us who farm and ranch were "fat cat land speculators."

I said it in 1980 and I'll say it again. There is not a more vulnerable group of tax targets in the nation. And based on the average age and income levels of royalty owners of the nation, not many groups that could be singled out that could be more undeserving of this vicious tax treatment.

Our demographic information has been repeatedly presented to hundreds of elected and paid officials of our national government, at a cost of thousands upon thousands of dollars to our organization over the years. Our members have knocked on many Congressional and bureaucratic doors since 1980, and I fail to see that 1) that the government cares, or 2) that the picture is likely to get any better until Mr. Gaylord buys the Washington Post and the New York Times and changes the attitude of the nation's press, and the Congress that it so persistently influences.

It is obvious from the more favorable treatment afforded the producers that a big campaign war chest is needed to get favorable action from the White House. It is unlikely that we can ever match their spending, but we can match their votes, many times over. And I'll guarantee you that you can take this message back to the Potomoc..."we shall not forget when George Bush comes calling with flowers in his hand."

It should be noted, we fully supported the independent producers' fight and tried in vain to get their support for ours in these last crucial months.

Here's what the Treasury Tax proposal will do to both us and the states in which we live.

1) It makes us, and not the oil industry, still the highest taxed group of individuals in history. In most states, for example, we pay the windfall profits tax (under Treasury I it was promised an early phase out. Not so in the last revision.), severance taxes, ad volorem taxes, then we pay our state and federal income taxes. That, alone, seems more than a fair share.

2) You will diminish $1.2 billion yearly in royalty income in Oklahoma. The amount has yet to be fixed by the three accounting firms running our numbers but it will be in the neighborhood of a loss of $90 million yearly.

3) By the Treasury Dept.'s own estimates, this will amount to a yearly total of $900 million in five years that the royalty owners will no longer have to spend on their medical needs, homes, families and retirement, in this nation. This may be fair and equitable to some, but it smells of discrimination to the average royalty owner.

4) This, naturally, reduces tax revenues of state government.

5) By applying the economic multiplier of 2.7 to this income, it represents a loss equal to the immediate loss of the state's largest industrial employers.

6) It further, in its entire scope, will drive more independent producers from the business, slack that is even now being taken up by the major oil corporations. This concentration restricts leasing prices and freedom, and makes the nation more vulnerable to OPEC domination and foreign imports.

7) Aside from the royalty owners we traditionally represent, the tax plan also impacts with a heavy hand the thousands of landmen, engineers, dirt contractors, geologists and small operators who have taken royalties and overrides in lieu of payment for services rendered.

8) It marks another direct hit on the rural economies and the farm and ranch sector.

9) It is the third major campaign promise to be broken by the White House regarding the royalty owners of the nation.

As I recently reminded Senator Nickles, our minerals, regardless of acquisition, is considered by us as an investment. Somehow, someone paid for it. In Oklahoma it could have been in lieu of labor or along with the enhanced cost of land. But it is an asset.

If you go back to Washington, and find that we can't get fair and equitable treatment under the fair and equitable plan, then help us get equal treatment with other investors.

What I'm proposing is that we be treated to capital gains as investors and get ouselves miles away from depletion, which makes us a sitting duck.

I have attached several examples to show you how we'd come out, both under current tax law and under the Reagan proposal, computed both with and without percentage depletion, so as to cover every angle.

Let's assume for example, a married couple with $30,000 of regular income and $10,000 from royalty . He farms and she teaches school in town, a situation very typical in this state.

Under current law, this couple (they have two children) would pay $4484 in taxes. Under the Reagan Plan they'd pay $3800. If Reagan's plan included percentage depletion, they'd pay 7 percent less in taxes, or $3555.

However, if they were taxed on royalty like any other investment, with royalty income treated as a ccapital asset, they would pay only $3135, which is 11 percent less tax than under the Reagan Plan without percentage depletion.

While many variables have been mixed into this example, we are told that it computes equally good in other tax examples by three different accounting firms.

Here's another graphic example that proves our point that we are financially persecuted even with percentage depletion as it exists under current law.

If a surface owner sells land on the installment plan, he still gets to take capital gains. If you sell minerals on the installment plan, which is what we actually do if a propety becomes productive, we are taxed on ordinary income. The tax rate, even with percentage depletion, can be two times more favorable for the surface owner.

On a lease bonus, or "option to drill" as it is more properly defined, which is all that the average mineral owner will ever see based on he success-failure rate of exploration drilling, I also face double the tax rate of a surface owner who has received an "option to sell" for the same dollar amount.

This is but one "out" afforded us.

The other one, which though unworkable I would strongly advocate, is that we should prove we are part of the energy equation by simply refusing to lease until sanity again is restored to our government. If one-half the nation refused to lease for three years, I'll guarantee we would be invited along to share our opinions at the White House and even -- maybe -- to break bread at the Petroleum Club.

Frankly, anyone today is a fool to lease in gas areas because government tampering has restricted markets and prices, and most should think twice about leasing in an oil area. Such a boycott, if the half that continued leasing agreed to up the price and hold firm until they could recover in bonus what they would potentially lose in percentage depletion, and the WPT, maybe we could turn Congress around.

Unfortuntely, this option won't work. Under most state laws we have force pooling. This means we get leased whether we want to or not, and in Oklahoma, too many times for terms set by the state which are more fantasy than fact. This rules it out.

As you can see, contrary to Sec. Baker, royalty income has not been the focus of tax shelter or loophole treatment.

Why, then, should we continue to be assaulted.

As a further example, if I sell my mineral interest in a block and don't sign a lease, I do get long term capital gains treatment.

But if I receive payment over a long period of time as the property is developed and depleted, royalty income has been subject to ordinary income treatment.

The removal of oil over a period of time is very similar to a person who has sold his land over a period of years and received his payment in installments. This is what I'm doing when I allow the oil company to develope my property. I'm receiving payment for that asset over a period of time.

All that would be required would be to include in the definition of capital assets that the sale of mineral or royalty inerest, whether in lump on in installments, would be considered a capital asset.

Under such a plan, such as with stocks and bonds, we wouldn't be subjected to the WPT, severance taxes, or federal price ceilings such as natural gas.

Here is another example. Let's assume that under current law I buy $10,000 worth of stock at 50 cents a share, held on to it for 10 years and watched it apprciate in value to $50 a share. The dividends I received would be taxed as ordinary income, but I'd still have the stock. If I decided to sell the stock off a little at a time. I'd be taxed on that income at a capital gains rate, which currently allows the exclusion of 60 percent of the income from taxation.

On the other hand, if I bought a non-producing mineral interest and held onto it for 10 years before a well was produced, my royalty income would be considered as ordinary income except for the 15 percent depletion exclusion now afforded to reduce taxation.

So, if my return on the sale of stock is $10,000 a year, I only pay taxes on $4000 of that income. If my return on the sale of oil or gas is only $10,000 a year, I pay taxes on $8,500 of that income.

This is what the Yankee tax whizes call our subsidy. They state we shouldn't be singled out for breaks other than any other investor.

O.K. We are tired of being used as a national symbol somewhere between Jed Clampitt and J.R. Ewing, as tax victim targets, since television is where most of the Treasury Dept. must conduct their energy owner research.

We're also sick and tired of not being given the same advantages of the producer, since we take the same risks with our contribution of minerals, but still are labled as non-productive.

So, let's treat us like the investors we really are.

Treasury Secretary Baker says capital gains are, and I quote, the "incentive is a fundamental part of the entrepreneurship that has driven the economic engine for years."

He counts us into the "energy equation" when tax penalties are exacted and counts us out when tax deductions are considered.

We're tired of being ruled by the editorial writers of two newspapers, and too old and tired to wait for E. K. Gaylord to buy'em out and replace their staff with some good honest farm boys from the Sooner State.

Several other minerals have received this capital gains treatment. And I've been told they, too, may be in endangered statues. These are iron, coal and timber.

We are in a unique and uncomfortable position. We have a wasting and irreplaceable asset. We don't even know we have it or not until the well bore probes its innards. Even that can be capricious, as many, many of us know.

A stock can be inherited, even if the basis is zero, and if held for a year, receive long term capital gains treatment.

We're tired of being singled out to satisfy the blood lust of the liberals and the 38,000 Washington journalists who make their living by stealing their material lock, stock and viewpoint from the nation's two liberal newspapers. We've finally come to realize that campign funds for George Bush are more important to the White House than our elderly and sick. And that the elderly and sick in Massachussetts are more vital to our government than those in the vote lean Southwest.

If you, Senator, and our other friends among the oil-state Congressional delegation can't save depletion, again I would urge you give serious consideration to adoption of such a plan.

Maybe it'll get the government and the White House experts off our back and out of our pocket so we can concentrate our energies on making a living rather than fighting tooth and nail to keep what we've got. I thank you, Senator, for your efforts on our behalf.

Senator Boren. Mr. Chairman, I am very pleased that the intangible drilling production proposal that was included in Treasury I has been wisely omitted from the current proposal; but some discussion still persists that efforts might be made to remove that deduction in the final version. Of course, such an action would be a disaster for domestic energy production, as my colleagues have already indicated. It would be a serious blow, I believe, also to our national security. It would reduce drilling by over 30,000 wells a year during the period from 1986 to 1991.

When that proposal was first included in Treasury I, the Interstate Oil Compact Commission had a very thorough study made of the potential impact of deletion of intangible drilling costs deduction from the law. And I would also like to submit for the record the full text of the summary of those findings, because I think it should be a part of the record. And I hope that before any member of this committee or any Member of Congress would be tempted to try to resurrect that proposal, that they would look very carefully at that evidence and consider the impact that it would have on our economy.

[The study follows:]

IMPACT ON THE NATIONAL ECONOMY OF REPEALING THE EXPENSING OF INTANGIBLE DRILLING COSTS

Prepared for the
Interstate Oil Compact Commission

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1985

EXECUTIVE SUMMARY

IMPACT OF FEDERAL TAX PROPOSALS OF INTANGIBLE DRILLING COSTS
1986 - 1991

AVERAGE IMPACT 1986 - 1991	NATIONAL
REDUCTION IN ANNUAL DRILLING	$11,213,406,500 Per year
REDUCTION IN JOBS	560,670 Per year
REDUCTION IN NUMBER OF WELLS DRILLED**	100,997 Wells
REDUCTION IN DRILLING RIGS	1,085 Per year
REDUCTION IN OIL AND GAS RESERVES ADDED**	5,607,000,000 Boe
REDUCTION IN OIL AND GAS PRODUCTION	757,494 Boe per day
REDUCTION IN ANNUAL OIL AND GAS REVENUES	$5,427,000,000 Per year
REDUCTION IN SEVERANCE TAX PAYMENTS	$434,000,000 Per year

** Wells drilled and reserves are cumulative 1986 thru 1991.
All others are averages per year.

Basis:

- 1984 average number of drilling rigs:	2,428
- 1984 JAS total drilling expenditures:	$25,104
- 1983 JAS average well cost:	$371,721
- Gross production tax rate:	0.00%

- Industry expenditures are reduced by one-third in 1986 due to uncertainty and reduced third party funding.

- Third party funding is reduced by one-half in 1986 due to uncertainty in in tax treatment.

- After 1986 industry expenditures remain at two-thirds of 1984 levels + or - cash flow effects from forecast tax payments.

- After 1986 third party funding remains at two-thirds of 1984 levls + or - cash flow effects from forecast tax payments.

- Reserves are added at a $12.00 per barrel oil of equivalent from 1986 - 1991.

- The 1986 - 1991 average wellhead price of oil and gas combined is $19.63 per barrel of oil equivalent.

- A reduction in drilling expenditures of one million dollars results in a loss of 50 jobs (32 direct petroleum industry jobs and 18 indirect jobs).

IMPACT ON THE NATIONAL ECONOMY OF REPEALING THE EXPENSING OF INTANGIBLE DRILLING COSTS

Introduction

This study examines the impact on the United States' economy of repealing the expensing of intangible drilling costs. Under current tax law, intangible drilling costs (IDC's) are defined as expenditures that in themselves do not have salvage value and are incident to and necessary for the drilling of wells and the preparation of wells for the production of oil and natural gas. Examples of intangible drilling costs include wages, fuel and other supplies used in preparing to drill wells, and in drilling and completing wells. In contrast, the costs of steel tubular goods, valves and other equipment with salvage value are considered tangible equipment and must be capitalized for tax purposes.

Currently, intangible drilling costs may be deducted in calculating taxable income for the year in which they are incurred. However, under a recent proposal by the Treasury Department, intangible drilling costs would be capitalized, thus requiring the tax deductions for these expenditures to be spread out over the productive life of the well. Under this proposal, which, if enacted, would be effective for costs paid or incurred on or after January 1, 1986, the effect would be to greatly reduce the amount of cash available for drilling.

Major Findings

The study found that repealing the expensing of intangible drilling costs would have the following results, on average, during the 1986-91 period:

-- drilling expenditures would be reduced by $11,213,406,500 annually;

-- 560,670 jobs would be lost due to reduced drilling;

-- 30,166 fewer oil and gas wells would be drilled each year;

-- drilling rigs operating would be reduced by 1,085 yearly;

-- additions to domestic oil and natural gas reserves would be reduced 5,607,000,000 barrels of oil equivalent (oil and natural gas, where one barrel of oil is the energy equivalent of 5,800 cubic feet of gas);

-- daily oil and natural gas production would fall by 757,494 barrels of oil equivalent;

-- annual revenues from oil and gas sales would fall by $5,427,000,000;

-- state tax receipts from oil and gas production would fall by $434,000,000 annually.

Background on Expensing IDC's

Under current law, oil and gas producers have the right to elect to expense IDC's as incurred or to capitalize them. They may also elect to expense only the IDC's on dry wells and to capitalize the IDC's on productive wells. If capitalized, the costs are recovered through depletion and depreciation. No investment tax credit is allowed for IDC expenditures.

Normally, oil and gas producers elect to expense IDC's in the year occurred, as this increases their after-tax cash flow. Because of the time value of money, a tax benefit allowed in year one is obviously worth more than the same tax benefit spread out over several years.

Impact on After-Tax Cash Flow

Tables One through Five calculate the total tax benefits allowed for drilling a typical well at a total cost of $590,000 under current law and under four proposed changes in the current law. This total expenditure consists of $400,000 spent on IDC's; $140,000 spent on equipment and depreciated over a ten year period; and, $50,000 spent on leasehold and depleted over the same ten year period. Note that on Table One, Current Law, the tax rate is 50% and IDC's are deducted in year one. Table Two shows that under the Kemp-Kasten proposal, the tax rate is reduced to 25%, but IDC deductions are spread over a three year period. Table Three shows that the Bradley-Gepheardt proposal sets the tax rate at 30%, but requires IDC expenditures to be depreciated over the productive life of the well, in this case assumed to be ten years. Table Four, Treasury Proposal Without Indexing, sets the tax rate at 35% and treats IDC's the same as the Bradley-Gepheardt proposal. Table Five, Treasury Proposal Including Indexing at 6% Annual Rate of Inflation, shows the same tax rate and treatment for IDC's as in Table Four, except the cost basis is adjusted each year for inflation, thus increasing the amount of the deductions allowed in years two through ten.

Compared to present law, each of the four proposed changes would reduce the tax benefits available to the producer in year one. Although most of the tax benefits in years two through ten would be somewhat higher under the four proposed changes, these increases would not be enough to restore the tax benefits available in year one under current law.

Table Six, Evaluation and Dollar Comparison of Total Tax Benefits Under the Various Flat Tax Proposals, summarizes the total tax benefits as calculated in Tables One through Five and compares the tax benefits, in dollars, of the current law to those that would be available under the four proposed changes. Note that in year one the producer's tax benefits are reduced by $192,100 to $200,300 under the four proposed changes, so the lower overall tax rates do not offset the reduced IDC deductions.

Table Seven, Evaluation and Percentage Comparison of Total Tax Benefits Under the Various Flat Tax Proposals, uses the same total tax benefit data discussed above, and shows the percentage reduction in current tax benefits under each of the four proposed changes. Note that in year one, the total tax benefit from a $590,000 drilling expenditure drops by more than 32% in each case.

Table Eight, Evaluation and Comparison of After-Tax Cash Flow Using the Total Tax Benefits Under the Various Flat Tax Proposals, assumes a producer has $590,000 of income which he uses to drill a well. The drilling expenditure generates various tax deductions under the current law and the four proposed changes, resulting in the after-tax cash flow shown in Table Eight. The largest reduction, $103,600 or 17.56%, occurs in year one under the Treasury proposal, with or without inflation indexing. Even though the Producer's cash flow would be increased by 4.32% in year two under the Treasury proposal with indexing, his tax benefits for new expenditure made that year would once again be 17.56% lower than under current law. So, under the Treasury proposal, the after-tax cash flow of the producer who drills new wells each year would never catch up with the amount he could expect under current law.

Impact on National Economy

The impact on the national economy of repealing the expensing of intangible drilling costs is assessed by taking the effect on the producer's after tax cash flow from an average well, as analyzed above, and applying the results to overall petroleum industry figures.

Table Nine, National Analysis of the Impact of the Proposed Tax Treatment on Intangible Drilling Costs on Drilling Expenditures, Wells Drilled, Employment and Reserves Found - 1986-1991, shows the historical expenditures for domestic drilling for 1980 through 1983, as reported by the Joint Association Survey. Under current law, 1986-91 drilling expenditures are forecast to remain at the 1983 level. Presently, approximately 38% of the funds available for drilling is obtained from outside the petroleum industry from sources such as investors and bank loans. Approximately 62% of the funds available for drilling is generated within the industry from oil and gas revenues.

For an investor, the ability to expense two-thirds or more of his investment in oil and gas drilling during the first year is a major incentive for putting his dollars at risk. Falling oil and natural gas prices during the past two years have already made it more difficult to raise outside capital, through either debt or equity means. If a worthwhile yet high risk investment has no better tax treatment than a safe investment, the investor may as well play it safe. Thus, third party funding is forecast to drop by one-half in 1986 under the Treasury proposal.

The economic analysis forecasts that, if the Treasury proposal were enacted, drilling expenditures in 1986 would drop by one-third, or $9,941,000,000. The reduction would be due to uncertainty within the industry and reduced funding from outside investors and lenders. After 1986, industry expenditures on domestic drilling are forecast to remain at two-thirds of 1984 levels, adjusted by the percentage change in after-tax cash flow, as calculated on Table Eight for the Treasury proposal.

Economic research has found that a reduction in drilling expenditures of $1,000,000 results in the loss of fifty jobs. Therefore, the 1986-1991 yearly average of $11,213,000,000 in reduced drilling expenditures would result in 560,670 jobs lost.

At an average cost of $371,721 per well, these reduced drilling expenditures would mean that 30,196 fewer oil and gas wells would be drilled each year, and 1,085 fewer rigs would be running annually. Based on an average finding cost of $12 per barrel of oil equivalent, reserve additions would be reduced by 5,607,000,000 barrels of oil equivalent during the six year period.

Because of the reduced drilling, daily production would drop by an average of 757,494 barrels of oil equivalent. At an average price of $19.63 per barrel of oil equivalent, the reduced production would result in an average annual reduction in oil and gas sales of $5,427,000,000. Revenues from state production taxes, at an average tax rate of 8% would drop $434,000,000 annually.

The impact on the United States economy is illustrated by Charts One through Seven, each headed U.S. Impact of IDC Tax Proposal. Chart One, Comparison of Drilling Expenditures Yearly, shows historical drilling expendituress from 1980 through 1984, then compares the forecast of domestic drilling expenditures under current law to the forecast for expenditures under the Treasury Proposal. The remaining charts show the 1986-1991 annual impact on drilling expenditures, employment, wells drilled, rigs in operation, reserves added, and daily production.

Tax Benefits From Drilling Expenditures Available Under Current Law

Table One

Year	IDC	Depreciation	Depletion	Total Deductions	Tax Benefit At 50% Rate	Investment Tax Credit	Total Tax Benefits
1	400,000	21,000	7,000	428,000	214,000	11,200	225,200
2	0	30,000	11,700	42,300	21,300	0	21,300
3	0	29,400	8,300	37,700	18,900	0	18,900
4	0	29,400	7,300	36,700	18,400	0	18,400
5	0	29,400	6,300	35,700	17,900	0	17,900
6	0	0	4,700	4,700	2,400	0	2,400
7	0	0	2,200	2,200	1,100	0	1,100
8	0	0	1,100	1,100	600	0	600
9	0	0	400	400	200	0	200
10	0	0	200	200	100	0	100
TOTAL	400,000	140,000	50,000	590,000	295,300	11,200	306,500
				Net After Tax Present Value at		12.00%	225,000

IDC =	$400,000
Equipment =	$140,000
Leasehold =	$50,000
Total Expenditures =	$590,000
Tax Return =	50.00%

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Kemp - Kasten Proposal

Table Ten

Year	IDC	Depreciation	Depletion	Total Deductions	Tax Benefit At 25% Rate	Investment Tax Credit	Total Tax Benefits
1	100,000	21,000	12,500	133,500	33,400	0	33,400
2	152,000	30,600	19,000	201,600	50,400	0	50,400
3	148,000	29,400	18,500	195,900	49,000	0	49,000
4	0	29,400	0	29,400	7,400	0	7,400
5	0	29,400	0	29,400	7,400	0	7,400
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
TOTAL	400,000	140,000	50,000	590,000	147,700	0	147,700
				Net After Tax Present Value at		12.00%	113,900

IDC =	$400,000
Equipment =	$140,000
Leasehold =	$50,000
Total Expenditures =	$590,000
Tax Return =	25.00%

Bradley - Gephardt Proposal

Table Three

Year	IDC	Depreciation	Depletion	Total Deductions	Tax Benefit At 30% Rate	Investment Tax Credit	Total Tax Benefits
1	50,000	28,000	6,300	84,300	25,300	0	25,300
2	87,500	44,800	10,900	143,200	43,000	0	43,000
3	65,600	26,900	8,200	100,700	30,200	0	30,200
4	49,200	16,100	6,200	71,500	21,500	0	21,500
5	36,900	9,700	4,600	51,200	15,400	0	15,400
6	27,700	5,800	3,500	37,000	11,100	0	11,100
7	21,000	3,300	2,600	26,900	8,100	0	8,100
8	15,600	2,100	1,900	19,600	5,900	0	5,900
9	11,700	1,200	1,500	14,400	4,300	0	4,300
10	35,000	1,900	4,300	41,200	12,400	0	12,400
TOTAL	400,000	140,000	50,000	590,000	177,200	0	177,200
				Net After Tax Present Value at		12.00%	118,000

IDC =	$400,000
Equipment =	$140,000
Leasehold =	$50,000
Total Expenditures =	$590,000
Tax Return =	30.00%

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Treasury Proposal Without Indexing

Table Four

Year	IDC	Depreciation	Depletion	Total Deductions	Tax Benefit At 50% Rate	Investment Tax Credit	Total Tax Benefits
1	62,600	25,200	7,800	95,600	22,500	0	22,500
2	93,900	20,700	11,700	126,300	60,200	0	60,200
3	66,100	16,900	8,300	91,300	32,600	0	32,600
4	58,400	12,900	7,300	79,600	27,900	0	27,900
5	50,100	11,600	6,300	67,000	23,700	0	23,700
6	37,600	9,300	4,700	51,600	18,100	0	18,100
7	17,400	7,700	2,200	27,300	9,700	0	9,600
8	8,700	6,300	1,100	16,100	5,600	0	5,600
9	3,500	5,100	400	9,000	3,200	0	3,200
10	1,700	21,300	200	23,000	8,900	0	8,900
TOTAL	400,000	110,000	50,000	590,000	195,800	0	206,700
				Net After Tax Present Value at		12.00%	128,900

IDC = $400,000
Equipment = $110,000
Leasehold = $80,000
Total Expenditures = $590,000
Tax Return = 33.00%

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Table Five

Treasury Proposal Including Indexing
At 6% Annual Rate of Inflation

Year	IDC	Depreciation	Depletion	Total Deductions	Tax Benefit At 35% Rate	Investment Tax Credit	Total Tax Benefits
1	62,600	25,200	7,800	95,600	33,500	0	33,500
2	99,500	21,900	12,400	133,800	46,800	0	46,800
3	74,300	19,000	9,300	102,600	35,900	0	35,900
4	69,600	16,500	8,700	94,800	33,200	0	33,200
5	63,200	14,400	7,900	85,500	29,900	0	29,900
6	50,300	12,500	6,300	69,100	24,200	0	24,200
7	24,700	10,900	3,100	38,700	13,500	0	13,500
8	13,100	9,400	1,600	24,100	8,400	0	8,400
9	5,500	8,200	700	14,400	5,000	0	5,000
10	2,900	39,600	400	42,900	15,000	0	15,000
TOTAL	465,700	177,600	58,200	701,500	245,400	0	245,400
				Net After Tax Present Value at		12.00%	159,200

IDC = $400,000
Equipment = $140,000
Leasehold = $50,000
Total Expenditures = $590,000
Tax Return = 35.00%

Table Six

EVALUATION AND DOLLAR COMPARISON OF TOTAL TAX BENEFITS UNDER THE VARIOUS FLAT TAX PROPOSALS

	TOTAL TAX BENEFIT					COMPARISON OF TAX BENEFITS WITH CURRENT LAW			
YEAR	CURRENT LAW 50%	KEMP & KASTEN 25%	BRADLEY & GEPHEARDT 30%	TREASURY WITHOUT INDEXING 35%	TREASURY WITH INDEXING 35%	KEMP & KASTEN 25%	BRADLEY & GEPHEARDT 30%	TREASURY WITHOUT INDEXING 35%	TREASURY WITH INDEXING 35%
1	$225,600	$33,400	$25,300	$33,500	$33,500	($192,200)	($200,300)	($192,100)	($192,100)
2	$21,300	$50,500	$43,000	$44,200	$46,800	$29,200	$21,700	$22,900	$25,500
3	$18,900	$49,000	$30,200	$32,000	$35,900	$30,100	$11,300	$13,100	$17,000
4	$18,400	$7,400	$21,500	$27,900	$33,200	($11,000)	$3,100	$9,500	$14,800
5	$17,900	$7,400	$15,400	$23,700	$29,900	($10,500)	($2,500)	$5,800	$12,000
6	$2,400	$0	$11,100	$18,100-	$24,200	($2,400)	$8,700	$15,700	$21,800
7	$1,100	$0	$8,100	$9,600	$13,500	($1,100)	$7,000	$8,500	$12,400
8	$600	$0	$5,900	$5,600	$8,400	($600)	$5,300	$5,000	$7,800
9	$200	$0	$4,300	$3,200	$5,000	($200)	$4,100	$3,000	$4,800
10	$100	$0	$12,400	$8,900	$15,000	($100)	$12,300	$8,800	$14,900
TOTAL	$306,500	$147,700	$177,200	$206,700	$245,400	($158,800)	($129,300)	($99,800)	($61,100)
NPV @ 12.00%	$255,772	$113,859	$117,980	$138,896	$159,230	($141,913)	($137,792)	($116,876)	($96,542)

BASIS:

IDC:	$400,000
EQUIPMENT:	$140,000
LEASEHOLD:	$50,000

*** ASSUMING 6% INFLATION INDEXING IN YEARS 2 THROUGH 10.

Table Seven

EVALUATION AND PERCENTAGE COMPARISON
OF TOTAL TAX BENEFITS UNDER
THE VARIOUS FLAT TAX PROPOSALS

	TOTAL TAX BENEFIT					PERCENT REDUCTION IN TAX BENEFIT BASED ON A $590,000 EXPENDITURE IN YEAR 1			
YEAR	CURRENT LAW 50%	KEMP & KASTEN 25%	BRADLEY & GEPHARDT 30%	TREASURY WITHOUT INDEXING 35%	TREASURY WITH INDEXING*** 35%	KEMP & KASTEN 25%	BRADLEY & GEPHARDT 30%	TREASURY WITHOUT INDEXING 35%	TREASURY WITH INDEXING*** 35%
1	$225,600	$33,600	$25,300	$33,300	$33,300	-32.54%	-33.95%	-32.59%	-32.59%
2	$21,300	$50,300	$43,000	$44,200	$46,800	4.92%	3.68%	3.88%	4.32%
3	$18,900	$49,000	$30,700	$32,000	$35,900	5.10%	1.97%	2.22%	2.88%
4	$18,400	$7,400	$21,300	$27,900	$33,200	-1.86%	0.53%	1.61%	2.51%
5	$17,900	$7,400	$15,400	$23,700	$29,900	-1.78%	-0.42%	0.98%	2.03%
6	$2,400	$0	$11,100	$18,100	$24,200	-0.41%	1.47%	2.66%	3.69%
7	$1,100	$0	$8,100	$7,600	$13,500	-0.19%	1.19%	1.08%	2.10%
8	$600	$0	$5,900	$5,600	$8,400	-0.10%	0.90%	0.85%	1.32%
9	$200	$0	$4,300	$3,200	$5,000	-0.03%	0.69%	0.51%	0.81%
10	$100	$0	$12,000	$8,900	$15,000	-0.02%	2.02%	1.49%	2.53%
TOTAL	$306,500	$147,700	$177,200	$206,700	$245,400	-26.92%	-21.92%	-16.92%	-10.36%
NPV @ 12.00%	$255,772	$113,839	$117,980	$132,896	$159,230				

BASIS:

IDC:	$400,000
EQUIPMENT:	$140,000
LEASEHOLD:	$50,000
TOTAL	$590,000

*** ASSUMING 6% INFLATION INDEXING IN YEARS 2 THROUGH 10.

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Table Eight

EVALUATION AND COMPARISON
OF AFTER TAX CASH FLOW USING
THE IDC TOTAL TAX BENEFITS UNDER
THE VARIOUS FLAT TAX PROPOSALS

	EFFECT ON AFTER TAX CASH FLOW****					PERCENT REDUCTION IN CASH AVAILABLE TO SPEND BASED ON $570,000 EXPENDITURE IN YEAR 1			
YEAR	CURRENT LAW 50%	KEMP & KASTEN 25%	BRADLEY & GEPHARDT 30%	TREASURY WITHOUT INDEXING 35%	TREASURY WITH INDEXING*** 35%	KEMP & KASTEN 25%	BRADLEY & GEPHARDT 30%	TREASURY WITHOUT INDEXING 35%	TREASURY WITH INDEXING*** 35%
1	$520,600	$475,900	$438,300	$417,000	$417,000	-7.59%	-13.92%	-17.36%	-17.36%
2	$21,300	$30,300	$43,000	$44,200	$46,000	4.95%	3.60%	3.00%	4.32%
3	$18,900	$69,000	$30,200	$32,000	$35,900	5.10%	1.92%	2.22%	2.88%
4	$18,000	$7,400	$21,300	$27,900	$33,200	-1.06%	0.53%	1.61%	2.51%
5	$17,900	$7,400	$15,400	$23,700	$29,900	-1.70%	-0.42%	0.90%	2.03%
6	$2,900	$0	$11,100	$18,100	$24,200	-0.41%	1.47%	2.66%	3.69%
7	$1,100	$0	$8,100	$7,600	$13,300	-0.19%	1.19%	1.04%	2.10%
8	$600	$0	$5,900	$5,600	$8,000	-0.10%	0.90%	0.83%	1.32%
9	$200	$0	$4,300	$3,200	$5,000	-0.03%	0.69%	0.51%	0.81%
10	$100	$0	$12,400	$8,900	$15,000	-0.02%	2.08%	1.49%	2.53%
TOTAL	601300	590200	590200	590200	628900	-1.92%	-1.92%	-1.92%	4.64%

NOTE:

**** AFTER TAX CASH FLOW TAKING INTO ACCOUNT IDC AND OTHER TAX BENEFITS (AS CALCULATED ON TABLES ONE THROUGH FIVE).
*** ASSUMING 6% INFLATION INDEXING IN YEARS 2 THROUGH 10.
** TAX WITHOUT TAKING INTO ACCOUNT IDC TAX BENEFITS.
* AFTER TAX CASH FLOW WITHOUT TAKING INTO ACCOUNT IDC TAX BENEFITS.

BASIS:

IDC:	$400,000
EQUIPMENT:	$140,000
LEASEHOLD:	$30,000
TOTAL	$570,000

Table Nine

NATIONAL
ANALYSIS OF THE IMPACT OF THE PROPOSED TAX TREATMENT OF INTANGIBLE DRILLING COSTS ON DRILLING EXPENDITURES, WELLS DRILLED, EMPLOYMENT & RESERVES FOUND - 1986- 1991

1984 DRILLING RIGS	2428
1983 WELL COST	$371,721
OPT TAX RATE	8.00%

	CURRENT LAW		TREASURY PROPOSAL								
YEAR	TOTAL CASH AVAILABLE FOR DRILLING ($mm)	J.A.S. DRILLING EXPENDITURES ($mm)	TOTAL CASH AVAILABLE FOR DRILLING ($mm)	J.A.S. DRILLING EXPENDITURES ($mm)	REDUCTION IN TOTAL CASH AVAILABLE FOR DRILLING ($mm)	REDUCTION IN DRILLING EXPENDITURES ($mm)	REDUCTION IN EMPLOYMENT (JOBS	REDUCTION IN TOTAL WELLS DRILLED	REDUCTION IN DRILLING RIG ACTIVITY	REDUCTION IN RESERVES ADDED (mmBOE)	REDUCTION IN DAILY PRODUCTION (BOE/DAY)
80	$22,890	$22,890	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
81	$36,665	$36,665	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
82	$39,428	$39,428	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
83	$25,105	$25,105	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
84	$25,105	$25,105	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
86	$25,105	$25,105	$15,163	$15,163	$9,941	$9,941	497,066	26,704	961	828	79,440
87	$25,105	$25,105	$12,501	$12,501	$12,603	$12,603	630,160	33,905	1,219	1,050	327,681
88	$25,105	$25,105	$13,629	$13,629	$11,476	$11,476	573,799	30,873	1,110	956	663,161
89	$25,105	$25,105	$13,751	$13,751	$11,354	$11,354	567,687	30,544	1,098	946	950,734
90	$25,105	$25,105	$14,016	$14,016	$11,089	$11,089	554,446	29,831	1,072	934	1,170,395
91	$25,105	$25,105	$14,288	$14,288	$10,817	$10,817	540,865	29,191	1,046	901	1,353,553
TOTAL	$150,627	$150,627	$83,347	$83,347	$67,280	$67,280	n.a.	180,997	n.a.	5,607	n.a.
AVERAGE	$25,105	$25,105	$13,891	$13,891	$11,213	$11,213	560,670	30,166	1,085	934	757,494

AVERAGE IMPACT 1986-91:

REDUCTION IN DRILLING EXPENDITURES YEARLY	$11,213 MILLION
REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:	560,670 JOBS
REDUCTION IN NUMBER OF WELLS DRILLED YEARLY	30,166 WELLS
REDUCTION IN DRILLING RIG RUNNING YEARLY	1,085 RIGS
REDUCTION IN RESERVES ADDED AT $12.00 PER BOE:	5,607 mmBOE
REDUCTION IN DAILY OIL AND GAS PRODUCTION:	757,494 BOE/DAY
REDUCTION IN OIL AND GAS SALES:	$5,427 MILLION
REDUCTION IN STATE OPT COLLECTIONS:	$434 MILLION

ASSUMPTIONS:

INDUSTRY EXPENDITURES ARE REDUCED BY ONE-THIRD IN 1986 DUE TO UNCERTAINTY AND REDUCED THIRD PARTY FUNDING
THIRD PARTY FUNDING IS REDUCED BY ONE-HALF IN 1986 DUE TO UNCERTAINTY IN TAX TREATMENT
AFTER 1986 INDUSTRY EXPENDITURES REMAIN AT TWO-THIRDS OF 1984 LEVELS + OR - REDUCED CASH FLOW FROM ACCELERATED TAX PAYMENTS.
AFTER 1986 THIRD PARTY FUNDING REMAIN AT ONE-HALF OF 1984 LEVELS + OR - REDUCED CASH FLOW FROM ACCELERATED TAX PAYMENTS.
1986 AVERAGE WELLHEAD PRICE WAS $19.63/BOE.
A REDUCTION IN DRILLING EXPENDITURES OF ONE MILLION DOLLARS RESULTS IN A LOSS OF 50 JOBS.

U.S. IMPACT OF IDC TAX PROPOSAL

COMPARISON OF DRILLING EXPENDITURES YEARLY

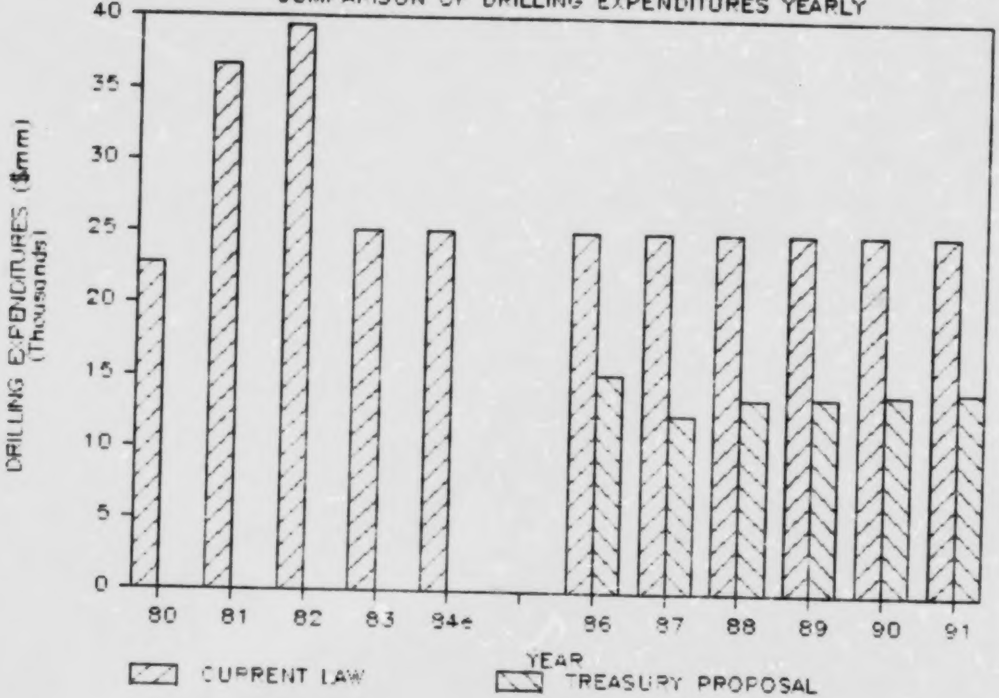

Chart One

U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DRILLING EXPENDITURES YEARLY

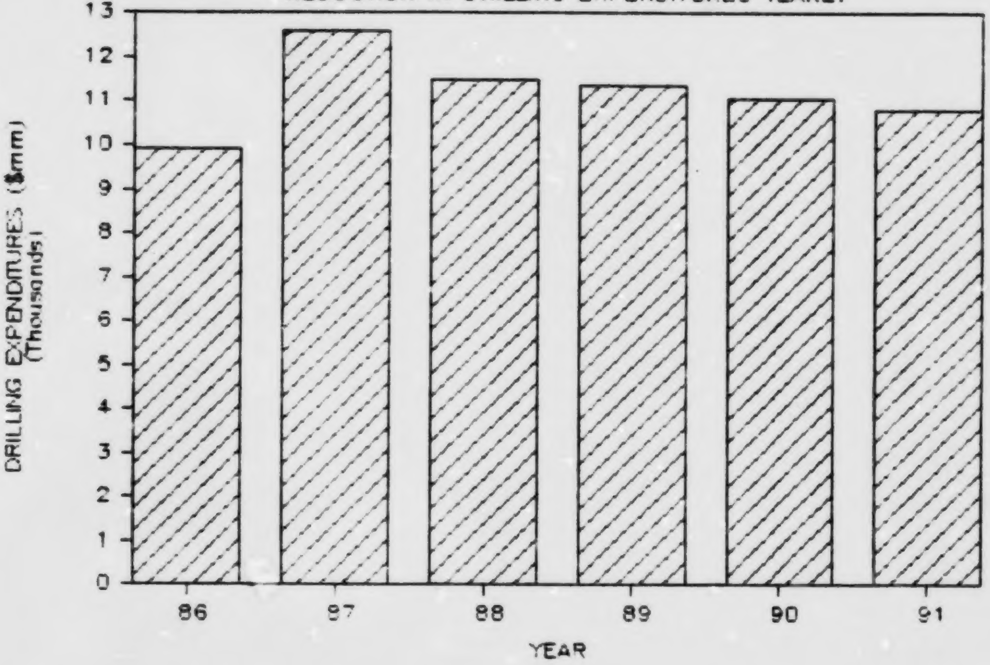

Chart Two

U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:

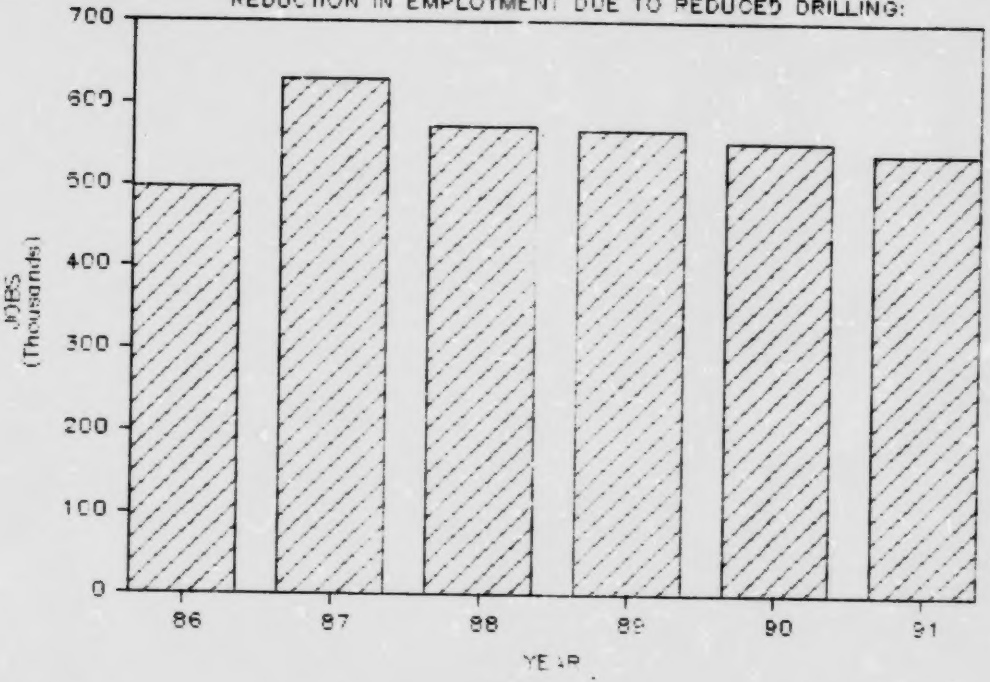

Chart Three

U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN NUMBER OF WELLS DRILLED YEARLY

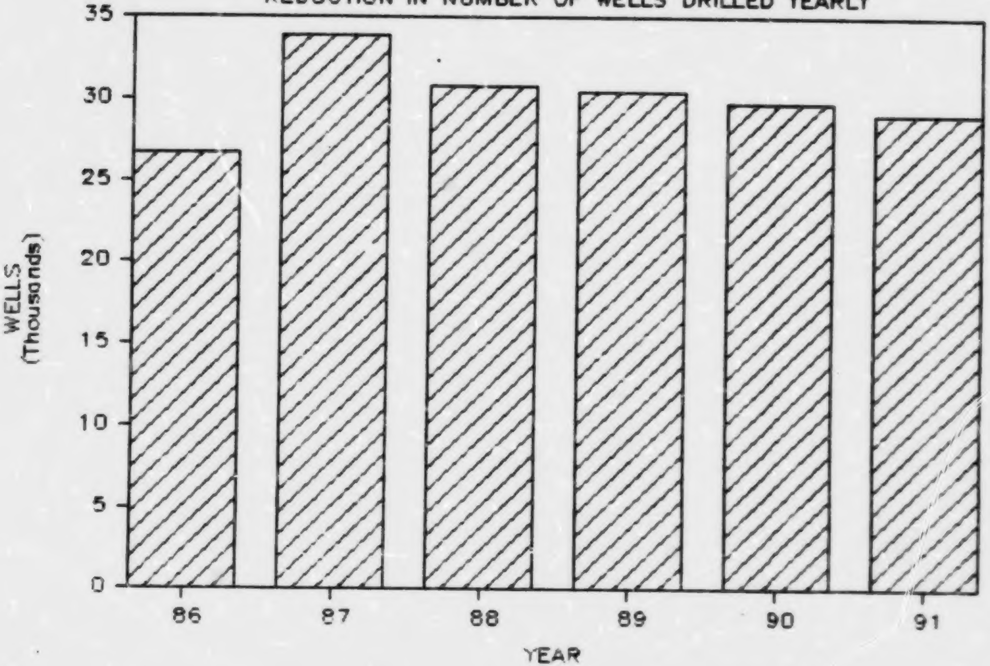

Chart Four

117

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U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DRILLING RIG RUNNING YEARLY

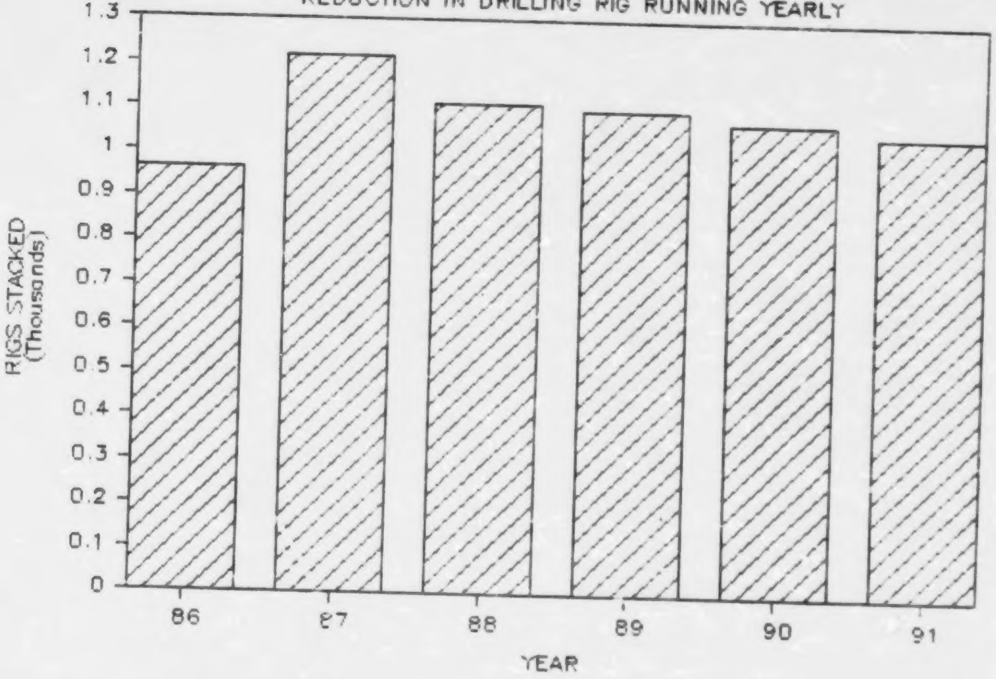

Chart Five

118

U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN RESERVES ADDED AT $12.00 PER BOE:

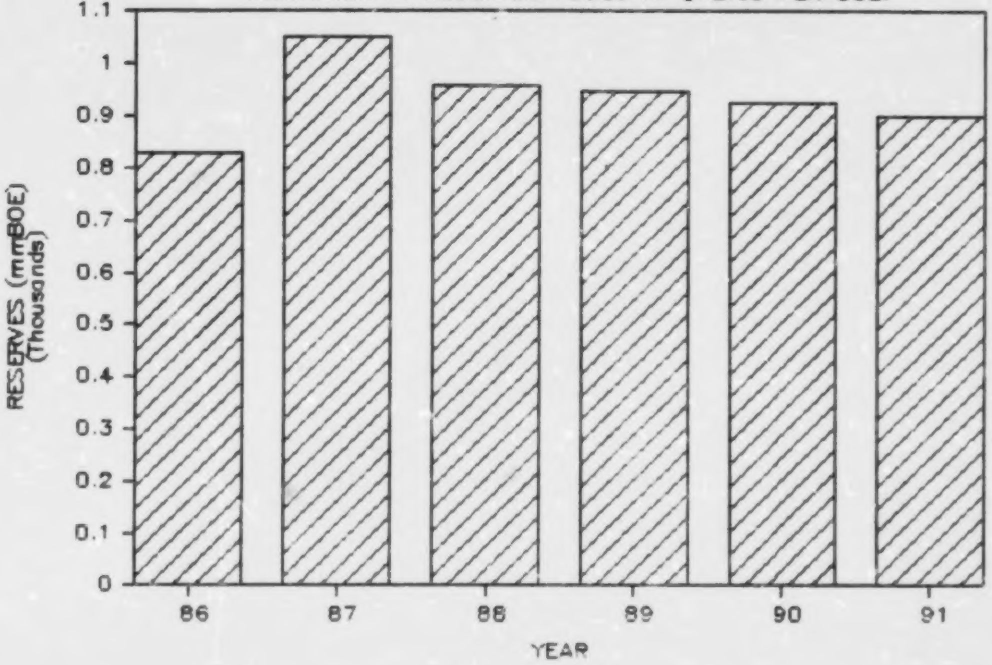

Chart Six

U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DAILY OIL AND GAS PRODUCTION:

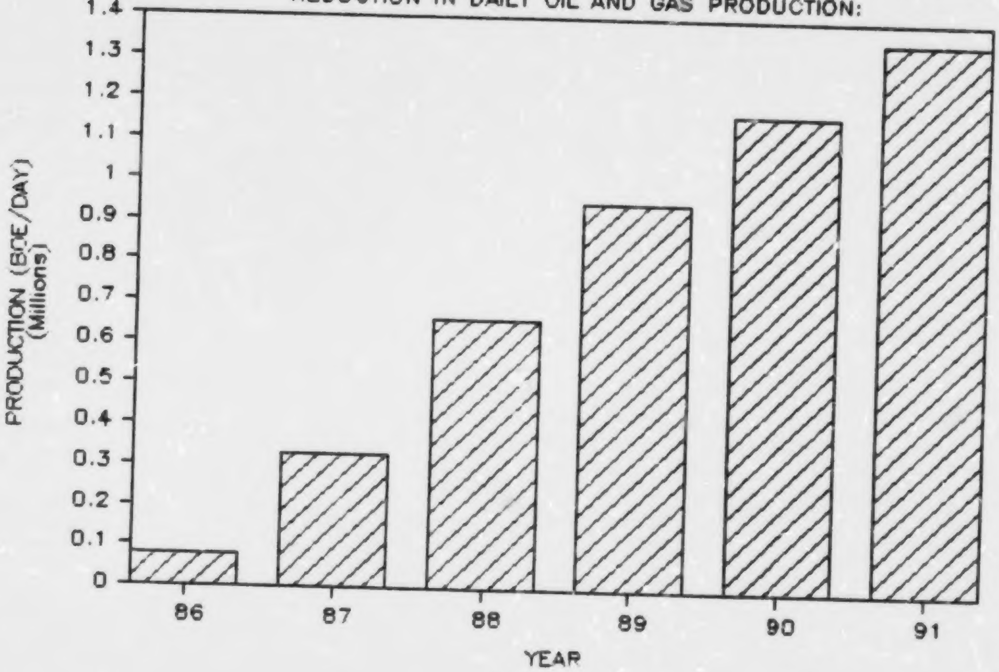

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Chart Seven

IMPACT OF REMOVAL OF PERCENTAGE DEPLETION ON STRIPPER OIL WELLS AND ON THE NATIONAL ECONOMY

Prepared for the
Interstate Oil Compact Commission

The RAM Group, Ltd.
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1985

IMPACT OF REMOVAL OF PERCENTAGE DEPLETION ON STRIPPER OIL WELLS AND ON THE NATIONAL ECONOMY

Introduction

The purpose of this study is to determine the impact on the United States' economy of removing from the federal tax laws the provision for percentage depletion on stripper oil wells.

A stripper oil well is one that produces less than 10 barrels per day. The importance of stripper wells to domestic oil production is shown on Table One, National Historical Stripper Well Statistics 1980-83 With Projected Impact Of Removal Of Percentage Depletion in 1986. At year-end 1983, the nation had more than 441,501 stripper wells producing an average of 2.87 barrels per day. Total annual stripper well production in 1983 was 462,010,000 barrels of oil, or 21.74% of total national production. Total stripper well reserves at year end 1983 were 4,590,810,000 barrels.

Under current federal tax laws, independent oil and gas producers and royalty owners are allowed to deduct 15% of the gross revenues from a limited amount of their oil and gas production, provided that the amount of percentage depletion allowed cannot exceed 50% of the net income from a particular property. The amount of oil and gas subject to percentage depletion allowed cannot exceed an average daily production of 1,000 barrels of oil or 6,000 Mcf of gas.

Percentage depletion, when allowed and if greater than cost depletion, must be taken in lieu of cost depletion. Percentage depletion allowed is deducted from capitalized costs, but may continue to be taken even if all capitalized costs have been recovered. Cost depletion may be taken only to the extent of capitalized costs.

This study focuses on stripper wells operated by independent producers, who operate two out of every three stripper wells. Production from these wells is not subject to the windfall profit tax, and most stripper wells have very low or no cost basis, so there is little or no tax basis for cost depletion. Therefore, disallowing the percentage depletion deduction on stripper oil wells, for which cost depletion is unavailable, would result in a direct and measurable loss of after-tax revenues for independent producers and royalty owners, and a significant adverse impact on the national economy.

The loss of revenues for independent producers and royalty owners resulting from the removal of percentage depletion on all their oil and gas production would be even greater.

However, measuring this loss and its impact on the national economy is outside the scope of this study.

Major Findings

The study found that removing percentage depletion on stripper wells would have the following results in the first year alone:

-- 36,597 stripper wells would be abandoned because they would no longer be economic to operate;

-- domestic oil production would be reduced by 78,910 barrels per day due to premature abandonment, and by 2,400 barrels per day due to decreased drilling;

-- oil and gas revenues would be reduced by $771,630,000;

-- royalty payments would fall by $115,700,000;

-- severance tax payments would drop by $61,700,000;

-- oil and gas drilling would be cut back by $308,600,000;

-- 70,200 jobs would be lost in the petroleum and other industries;

In addition, 849,000,000 barrels of proven developed oil reserves would be lost as the stripper wells are plugged and abandoned. This compares to 450,900,000 barrels stored in the National Strategic Petroleum Reserve at a cost to the taxpayers through fiscal 1984 of $14,500,000,000.

Background on Percentage Depletion

Percentage depletion is a tax provision that dates back to before 1920 and applies not just to oil and gas, but to other natural resources such as coal. The tax laws often distinguish between capital and income so capital is returned for future investments. But as an oil well produces, the producer's capital is being steadily depleted. So the percentage depletion deduction was established to prevent a gradual loss of capital by leaving the producer with more after-tax dollars needed to drill new wells and, thereby, replace the depleted reserves.

From 1926 to 1969, oil operators were generally allowed to deduct 27.5% of gross income from an oil property as percentage depletion. The 1969 Tax Reform Act cut the depletion percentage for oil properties to 22%. In 1975, a new tax law eliminated percentage depletion on oil properties for all major oil companies. But the law allowed small, non-integrated independent producers to keep their percentage depletion deduction at 22% until 1980, then gradually declining to 15% in 1984.

Stripper Well Economics

Tables Two, Three and Four show the estimated pre-tax and after-tax proceeds to major and independent producers with and without percentage depletion for the years 1974 through 1984. Average royalties are estimated at 15%, and severance taxes at 6%. Operating costs were estimated based on a survey of petroleum engineering firms and are the major variable in these three tables. Table Two is based on low operating costs; Table Three on medium operating costs, and Table Four on high operating costs. For the economic impact projections, the stripper well economics summarized in Table Three were used.

Chart One, Net Pre-Tax Proceeds to Independent Stripper Well Producers, shows that the pre-tax proceeds have dropped from $14.19 per barrel in 1981 to $7.93 per barrel in 1984. Chart Two, Value of Depletion to Independent Stripper Well Producers, shows that the value of percentage depletion to the independent producer has dropped from $2.58 per barrel in 1981 to $1.83 per barrel in 1984. This downward trend is expected to continue in 1986.

Note in Table Three that an independent producer in 1984 would receive net after-tax income of $5.80 per barrel under the current law, but only $3.96 per barrel without percentage depletion. Thus, the net effect of eliminating percentage depletion in 1984 would be $1.83 per barrel.

The economic life of these stripper wells is shortened by reductions in after-tax income regardless of whether the decrease results from falling prices, rising costs, or higher tax rates.

As seen in Chart Three, Net After-Tax Proceeds To Independent Stripper Well Producers, net after-tax proceeds have already dropped from $9.67 per barrel in 1981 to $5.80 per barrel in 1984. An additional tax burden resulting from removing percentage depletion would shorten the economic like of the average stripper well by 3.75 years, assuming there is no further decline in oil prices. This calculation is based on the average stripper well life of 25.8 years, the average stripper well production decline rate of 5.5% per year, and the change in net after-tax revenue to the operator from removal of percentage depletion. (See Table Five, National Stripper Well Summary, 1954-1983.)

Production and Reserve Losses

Chart Four, National Number of Stripper Wells, shows the total number of stripper wells operating annually in the United States from 1980 through 1986. An estimated 36,597 stripper wells would be abandoned in 1986 alone due to the removal of percentage depletion. As seen on Chart Five, National Abandonment of Stripper Wells, this would more than triple the annual abandonments in 1982-84. These abandonments would cause stripper well production to drop by 78,910 barrels per day, which would have to be replaced by imported oil. (See Chart Six, National Stripper Well Production, and Table Six, Summary Of The Impact Of The Removal Of Percentage Depletion For Stripper Well Properties.)

The proven developed oil reserves attributable to these wells would no longer be available. As shown on Chart Seven, National Stripper Well Reserves, and Table Six, these lost reserves total 849,000,000 barrels, or a 17.8% drop in total stripper well reserves.

Most oil wells eventually become stripper wells toward the end of their producing life. As stripper wells approach their economic limits and become candidates for plugging, only about 25% of the original oil in place has been produced by the primary reservoir drive. The use of secondary and other enhanced recovery measures can increase the resource recovered by an additional 15%. However, if a producer wants to make an additional investment in an enhanced recovery project, the first thing he needs is existing wells. If the stripper wells have been prematurely plugged, they are obviously unavailable for enhanced recovery projects. Therefore, prolonging the life of producing oil wells is even more important when one considers that the United States holds 300 billion barrels of discovered but unproduced oil that can only be tapped through enhanced recovery methods.

Adverse Economic Impact

As stated earlier, the reduction in oil production would cause the revenues to independent oil producers to drop by $771,630,000, reduce royalty payments by $115,700,000 and reduce severance tax payments by $61,700,000. Based on historical industry averages, every dollar in lost oil and gas revenue by independent producers results in $0.40 less spent to drill new wells. Thus, 1985 drilling expenditures would drop by nearly $308,600,000. (See Table Six.)

Economic research has found that, for every $1,000,000 of oil and gas revenue lost, employment drops by 91 jobs. Of these lost jobs, only 39 would be in the petroleum industry, while 52 would be in other industries affected indirectly by the reduced economic activity. Therefore, a total of 70,200 jobs would be lost in 1985 alone.

Conclusion

Eliminating percentage depletion on stripper well production would increase abandonments of stripper wells four-fold and significantly reduce drilling and production activity. The subsequent impact on the nation's economy would be severe. The nation's oil resource base available for secondary and other enhanced recovery projects would be reduced by millions of barrels. The major beneficiaries of such an ill-advised change in the tax laws would be foreign nations increasing their oil exports to the United States.

Table One

NATIONAL
SEVERANCE TAX RATE 0.000%

NATIONAL
HISTORICAL STRIPPER WELL STATISTICS 1980-1985
WITH PROJECTED IMPACT OF REMOVAL
OF PERCENTAGE DEPLETION IN 1986

	STRIPPER WELL				AVERAGE DAILY PRODUCTION PER STRIPPER WELL (BPD)	TOTAL STRIPPER WELL ANNUAL PRODUCTION (mmBBLS)	TOTAL PRODUCTION (mmBBLS)	TOTAL STRIPPER WELL AVERAGE DAILY PRODUCTION (BPD)	TOTAL AVERAGE PRODUCTION (BPD)	PERCENT STRIPPER PRODUCTION
YEAR	NUMBER	ABANDONMENTS	ADDITIONS	ACRES						
1979	386,310									
1980	395,176	6,614	15,480	9,664,125	2.77	401.16	2,461.10	1,095,089	6,724,389	16.30%
1981	409,539	7,215	21,578	9,683,564	2.85	426.50	2,137.97	1,168,500	5,857,430	19.95%
1982	416,493	9,426	16,380	9,720,451	2.90	441.95	2,072.51	1,210,825	5,678,107	21.32%
1983	441,301	11,032	36,040	10,411,234	2.87	462.01	2,125.02	1,265,790	5,821,973	21.74%
1984e	457,482	10,229	26,210	10,708,089	2.87	480.55	2,125.02	1,316,571	5,821,973	22.61%
1986p	420,885	36,597	0	9,925,079	2.94	451.52	2,095.99	1,237,037	5,742,439	21.54%

	STRIPPER WELL RESERVES		
YEAR	PRIMARY (mmBBLS)	SECONDARY (mmBBLS)	TOTAL (mmBBLS)
1979			
1980	3052.30	2130.24	5180.01
1981	2628.59	1798.37	4426.96
1982	2594.03	1860.37	4454.40
1983	2579.65	2011.16	4590.81
1984e	2683.13	2091.85	4774.98
1986p	2206.07	1719.91	3925.98

TABLE TWO

ESTIMATED PRE-TAX AND AFTER-TAX PROCEEDS TO THE PRODUCER WITH AND WITHOUT PERCENTAGE DEPLETION LOW OPERATING COST

YEAR	AVERAGE CRUDE OIL PRICE ($/BBL)	DECEMBER CRUDE OIL PRICE ($/BBL)	WPT BASE CRUDE OIL PRICE ($/BBL)	NET MAJOR STRIPPER CRUDE OIL PRICE ($/BBL)	NET INDEPENDENT STRIPPER CRUDE OIL PRICE ($/BBL)	ROYALTY ($/BBL)	SEVERANCE TAX ($/BBL)	LOW OPERATING COST ($/BBL)
1974	$7.16	$11.28	N.A.	$7.16	$7.16	$1.07	$0.43	$3.53
1975	$8.51	$13.18	N.A.	$8.51	$8.51	$1.28	$0.51	$4.04
1976	$9.19	$13.37	N.A.	$9.19	$9.19	$1.38	$0.55	$4.39
1977	$9.98	$14.73	N.A.	$9.98	$9.98	$1.50	$0.60	$4.83
1978	$10.90	$15.10	N.A.	$10.90	$10.90	$1.64	$0.66	$5.35
1979	$15.06	$24.50	N.A.	$15.06	$15.06	$2.26	$0.91	$5.97
1980	$27.55	$37.83	$17.18	$22.37	$24.96	$3.74	$1.50	$6.53
1981	$35.26	$36.22	$18.84	$25.41	$30.34	$4.55	$1.83	$6.93
1982	$32.81	$32.75	$20.20	$25.25	$29.03	$4.35	$1.75	$7.42
1983	$30.08	$30.00	$21.27	$24.79	$30.08	$4.51	$1.81	$8.16
1984	$28.75	$26.75	$21.98	$24.69	$28.75	$4.31	$1.73	$8.89

YEAR	MAJOR PRODUCER NET PROCEEDS ($/BBL)	INDEPENDENT PRODUCER NET PROCEEDS ($/BBL)	PERCENTAGE DEPLETION ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION		50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION		NET EFFECT OF REMOVAL OF DEPLETION ($/BBL)
				MAJOR ($/BBL)	INDEPENDENT ($/BBL)	MAJOR ($/BBL)	INDEPENDENT ($/BBL)	
1974	$2.12	$2.12	$1.34	$1.06	$1.73	$1.06	$1.06	$0.67
1975	$2.68	$2.68	$1.59	$1.34	$2.14	$1.34	$1.34	$0.80
1976	$2.87	$2.87	$1.72	$1.43	$2.29	$1.43	$1.43	$0.86
1977	$3.06	$3.06	$1.87	$1.53	$2.46	$1.53	$1.53	$0.93
1978	$3.26	$3.26	$2.04	$1.63	$2.65	$1.63	$1.63	$1.02
1979	$5.93	$5.93	$2.82	$2.96	$4.37	$2.96	$2.96	$1.41
1980	$10.59	$13.18	$4.67	$5.30	$8.92	$5.30	$6.59	$2.33
1981	$12.10	$17.03	$5.16	$6.05	$11.09	$6.05	$8.51	$2.58
1982	$11.73	$15.51	$4.44	$5.86	$9.98	$5.86	$7.76	$2.22
1983	$10.31	$15.60	$4.09	$5.16	$9.84	$5.16	$7.80	$2.05
1984	$9.76	$13.82	$3.67	$4.88	$8.74	$4.88	$6.91	$1.83

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TABLE THREE

ESTIMATED PRE-TAX AND AFTER-TAX PROCEEDS
TO THE PRODUCER WITH AND WITHOUT PERCENTAGE DEPLETION
MID OPERATING COST

YEAR	AVERAGE CRUDE OIL PRICE ($/BBL)	DECEMBER CRUDE OIL PRICE ($/BBL)	WPT BASE CRUDE OIL PRICE ($/BBL)	NET MAJOR STRIPPER CRUDE OIL PRICE ($/BBL)	NET INDEPENDENT STRIPPER CRUDE OIL PRICE ($/BBL)	ROYALTY ($/BBL)	SEVERANCE TAX ($/BBL)	MID OPERATING COST ($/BBL)
1974	$7.16	$11.28	N.A.	$7.16	$7.16	$1.07	$0.43	$3.72
1975	$8.51	$13.18	N.A.	$8.51	$8.51	$1.28	$0.51	$4.27
1976	$9.19	$13.37	N.A.	$9.19	$9.19	$1.38	$0.55	$5.90
1977	$9.98	$14.73	N.A.	$9.99	$9.98	$1.50	$0.60	$5.63
1978	$10.90	$15.10	N.A.	$10.90	$10.90	$1.64	$0.66	$6.46
1979	$15.06	$24.58	N.A.	$15.06	$15.06	$2.26	$0.91	$7.42
1980	$27.55	$37.83	$17.18	$22.37	$24.96	$3.74	$1.50	$8.51
1981	$35.26	$36.22	$18.84	$25.41	$30.34	$4.55	$1.83	$9.77
1982	$32.81	$32.75	$20.20	$25.25	$29.03	$4.35	$1.75	$11.22
1983	$30.08	$30.00	$21.27	$24.79	$30.08	$4.51	$1.81	$12.88
1984	$28.75	$26.75	$21.98	$24.69	$28.75	$4.31	$1.73	$14.78

YEAR	MAJOR PRODUCER NET PROCEEDS ($/BBL)	INDEPENDENT PRODUCER NET PROCEEDS ($/BBL)	PERCENTAGE DEPLETION ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION MAJOR ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION INDEPENDENT ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION MAJOR ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION INDEPENDENT ($/BBL)	NET EFFECT OF REMOVAL OF DEPLETION ($/BBL)
1974	$1.93	$1.93	$1.34	$0.97	$1.64	$0.97	$0.97	$0.67
1975	$2.45	$2.45	$1.59	$1.22	$2.02	$1.22	$1.22	$0.80
1976	$2.36	$2.36	$1.72	$1.18	$2.04	$1.18	$1.18	$0.86
1977	$2.25	$2.25	$1.87	$1.13	$2.06	$1.13	$1.13	$0.93
1978	$2.15	$2.15	$2.04	$1.07	$2.09	$1.07	$1.07	$1.02
1979	$4.48	$4.48	$2.82	$2.24	$3.65	$2.24	$2.24	$1.41
1980	$8.61	$11.20	$4.67	$4.30	$7.93	$4.30	$5.60	$2.33
1981	$9.26	$14.19	$5.16	$4.63	$9.67	$4.63	$7.09	$2.58
1982	$7.93	$11.71	$4.44	$3.96	$8.08	$3.96	$5.85	$2.22
1983	$5.59	$10.88	$4.09	$2.80	$7.49	$2.80	$5.44	$2.05
1984	$3.87	$7.93	$3.67	$1.93	$5.80	$1.93	$3.96	$1.83

TABLE FOUR

ESTIMATED PRE-TAX AND AFTER-TAX PROCEEDS TO THE PRODUCER WITH AND WITHOUT PERCENTAGE DEPLETION
HIGH OPERATING COST

YEAR	AVERAGE CRUDE OIL PRICE ($/BBL)	DECEMBER CRUDE OIL PRICE ($/BBL)	WPT BASE CRUDE OIL PRICE ($/BBL)	NET MAJOR STRIPPER CRUDE OIL PRICE ($/BBL)	NET INDEPENDENT STRIPPER CRUDE OIL PRICE ($/BBL)	ROYALTY ($/BBL)	SEVERANCE TAX ($/BBL)	HIGH OPERATING COST ($/BBL)
1974	$7.16	$11.28	N.A.	$7.16	$7.16	$1.07	$0.43	$3.85
1975	$8.51	$13.18	N.A.	$8.51	$8.51	$1.28	$0.51	$4.56
1976	$9.19	$13.37	N.A.	$9.19	$9.19	$1.38	$0.55	$5.42
1977	$9.98	$14.73	N.A.	$9.98	$9.98	$1.50	$0.60	$6.43
1978	$10.90	$15.10	N.A.	$10.90	$10.90	$1.64	$0.66	$7.63
1979	$15.06	$24.58	N.A.	$15.06	$15.06	$2.26	$0.91	$9.05
1980	$27.55	$37.83	$17.18	$22.37	$24.96	$3.74	$1.50	$10.74
1981	$35.26	$36.22	$18.84	$25.41	$30.34	$4.55	$1.83	$12.74
1982	$32.81	$32.75	$20.20	$25.25	$29.03	$4.35	$1.75	$15.12
1983	$30.08	$30.00	$21.27	$24.79	$30.08	$4.51	$1.81	$17.94
1984	$28.75	$26.75	$21.98	$24.69	$28.75	$4.31	$1.73	$21.29

YEAR	MAJOR PRODUCER NET PROCEEDS ($/BBL)	INDEPENDENT PRODUCER NET PROCEEDS ($/BBL)	PERCENTAGE DEPLETION ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION: MAJOR ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION: INDEPENDENT ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION: MAJOR ($/BBL)	50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION: INDEPENDENT ($/BBL)	NET EFFECT OF REMOVAL OF DEPLETION ($/BBL)
1974	$1.81	$1.81	$1.34	$0.90	$1.57	$0.90	$0.90	$0.67
1975	$2.16	$2.16	$1.59	$1.08	$1.87	$1.08	$1.08	$0.80
1976	$1.84	$1.84	$1.72	$0.92	$1.78	$0.92	$0.92	$0.86
1977	$1.46	$1.46	$1.87	$0.73	$1.66	$0.73	$0.73	$0.93
1978	$0.98	$0.98	$2.08	$0.49	$1.51	$0.49	$0.49	$1.02
1979	$2.85	$2.85	$2.82	$1.42	$2.83	$1.42	$1.42	$1.41
1980	$6.38	$8.97	$4.67	$3.19	$6.02	$3.19	$4.49	$2.33
1981	$6.29	$11.22	$5.16	$3.15	$8.19	$3.15	$5.61	$2.58
1982	$4.03	$7.81	$3.90	$2.01	$5.86	$2.01	$3.90	$1.95
1983	$0.53	$5.82	$2.96	$0.27	$4.36	$0.27	$2.96	$1.45
1984	($2.64)	$1.42	$0.71	($1.32)	$1.07	($1.32)	$0.71	$0.36

TABLE FIVE

NATIONAL STRIPPER WELL SUMMARY
1954 - 1983

YEAR ENDING DECEMBER 31	NUMBER OF STRIPPER WELLS	NUMBER OF ABANDONMENTS	NUMBER OF ADDITIONS	AVERAGE DAILY PRODUCTION PER WELL (BPD)
1954	327,412	11,318	19,133	3.62
1955	345,126	9,968	27,682	3.68
1956	357,716	8,996	21,586	3.72
1957	359,803	8,651	10,738	3.62
1958	361,062	9,788	11,047	3.88
1959	376,735	11,451	27,124	3.88
1960	403,323	15,434	42,022	3.92
1961	406,102	16,977	19,756	3.99
1962	406,051	16,224	16,173	3.91
1963	401,031	14,363	9,343	3.79
1964	394,107	14,476	7,552	3.72
1965	398,299	15,456	19,648	4.05
1966	380,549	16,207	(1,543)	3.49
1967	376,851	14,906	11,208	3.63
1968	367,205	20,496	10,850	3.62
1969	358,650	15,618	7,063	3.47
1970	359,130	15,631	16,111	3.37
1971	353,696	18,421	12,987	3.58
1972	359,471	13,485	19,258	3.13
1973	355,229	13,756	9,514	2.97
1974	366,095	13,779	24,645	3.08
1975	367,872	13,479	15,255	2.93
1976	365,733	9,916	7,777	2.93
1977	368,930	9,000	12,197	2.91
1978	374,635	8,380	14,085	2.86
1979	386,310	7,668	19,343	2.79
1980	395,176	6,614	15,490	2.77
1981	409,539	7,215	21,578	2.85
1982	416,493	7,426	16,380	2.90
1983	441,501	11,032	36,040	2.87
1954-1983 MEAN	377,994	12,607	16,670	3.40

AVERAGE NUMBER OF ADDITIONS AND ABANDONMENTS 14,639

MEAN STRIPPER WELL PRODUCING LIFE 25.8 YEARS

Table Six

EFFECT

SUMMARY OF THE IMPACT OF THE REMOVAL OF PERCENTAGE DEPLETION FOR STRIPPER WELL PROPERTIES

LOSS OF CRUDE OIL

EFFECT OF REMOVAL OF PERCENTAGE DEPLETION		NATIONAL
STRIPPER WELLS AS OF 1/1/1984		441.501
STRIPPER WELLS ABANDONED		36.597
OIL RESERVES LOST DUE TO PREMATURE ABANDONMENT*		849,000,000
REDUCED OIL PRODUCTION DUE TO:		
	PREMATURE ABANDONMENT	78,910
	DECREASED 1986 DRILLING	2,400
	TOTAL	81.310
REDUCTION IN ANNUAL OIL AND GAS SALES		$771,630,000
REDUCTION IN ROYALTY PAYMENTS		$115,700,000
REDUCTION IN SEVERANCE TAX PAYMENTS		$61,730,000
REDUCTION IN 1986 DRILLING		$308,600,000
REDUCTION IN JOBS		70.200

* Reserves figure is cumulative. All others are first year only.

NOTES:

- Two out of every three stripper wells are operated by independents.
- Most stripper wells have zero cost basis resulting in no cost depletion being available.
- The removal of percentage depletion results in the shortening of stripper well economic life by 3.75 years.
- Stripper wells operated by independent producers generally are exempt from windfall profits taxes.
- For every one million dollars of oil and gas revenue lost, employment decreases by 91 jobs (59 direct jobs in the petroleum industry and 32 indirect jobs in other industries).
- The average wellhead crude oil price for stripper wells will be approximately $26.00 per barrel in 1986.
- Every dollar in lost oil and gas revenue results in $0.40 less spent to drill new wells.

NET PRE-TAX PROCEEDS

TO INDEPENDENT STRIPPER WELL PRODUCERS

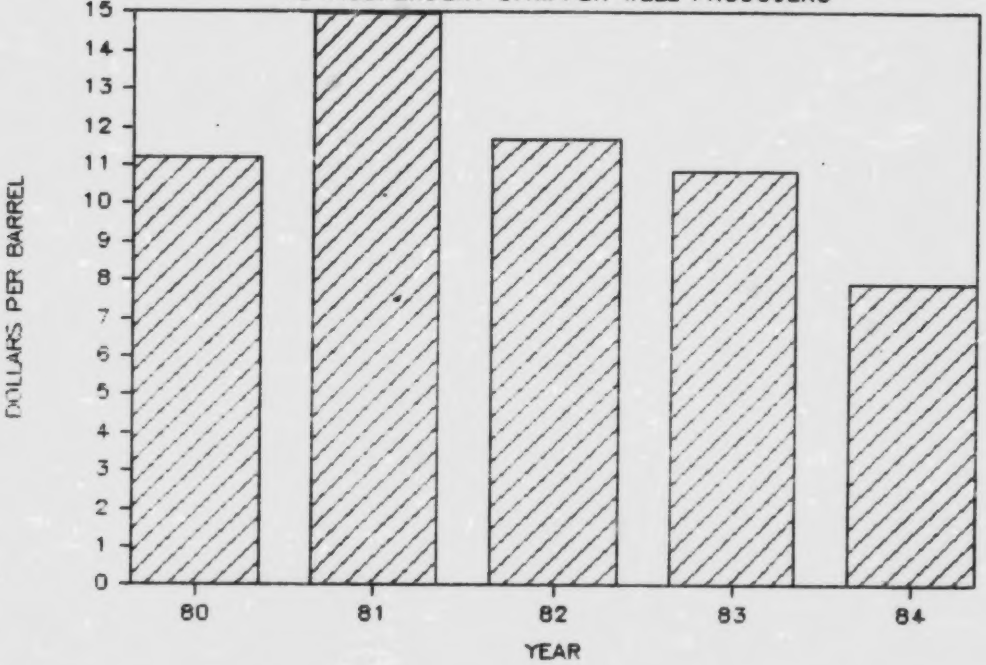


CHART ONE

VALUE OF DEPLETION

TO INDEPENDENT STRIPPER WELL PRODUCERS

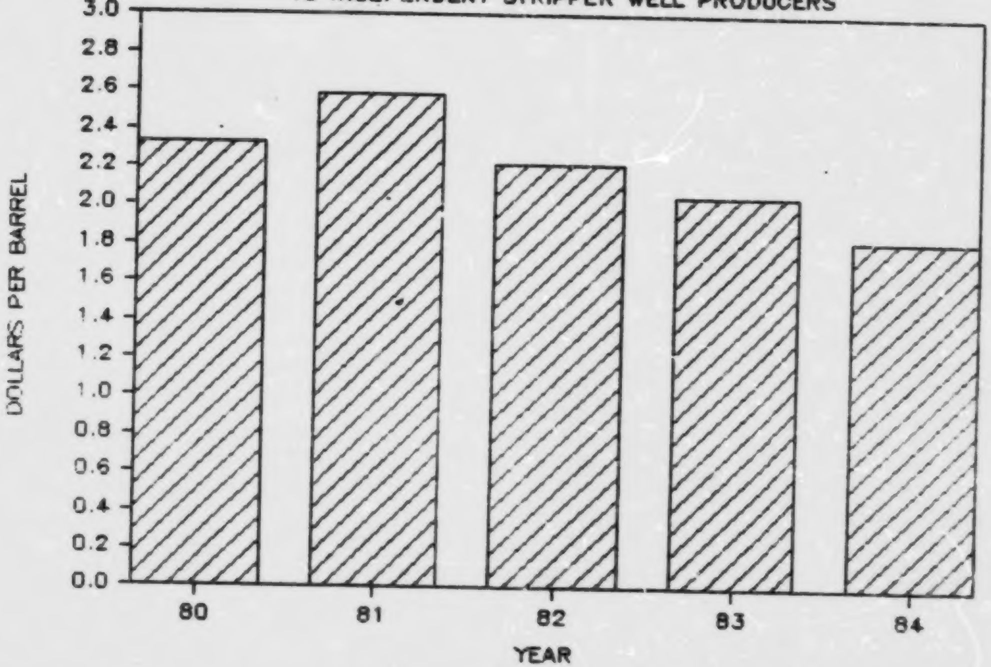


CHART TWO

174

NET AFTER-TAX PROCEEDS

TO INDEPENDENT STRIPPER WELL PRODUCERS

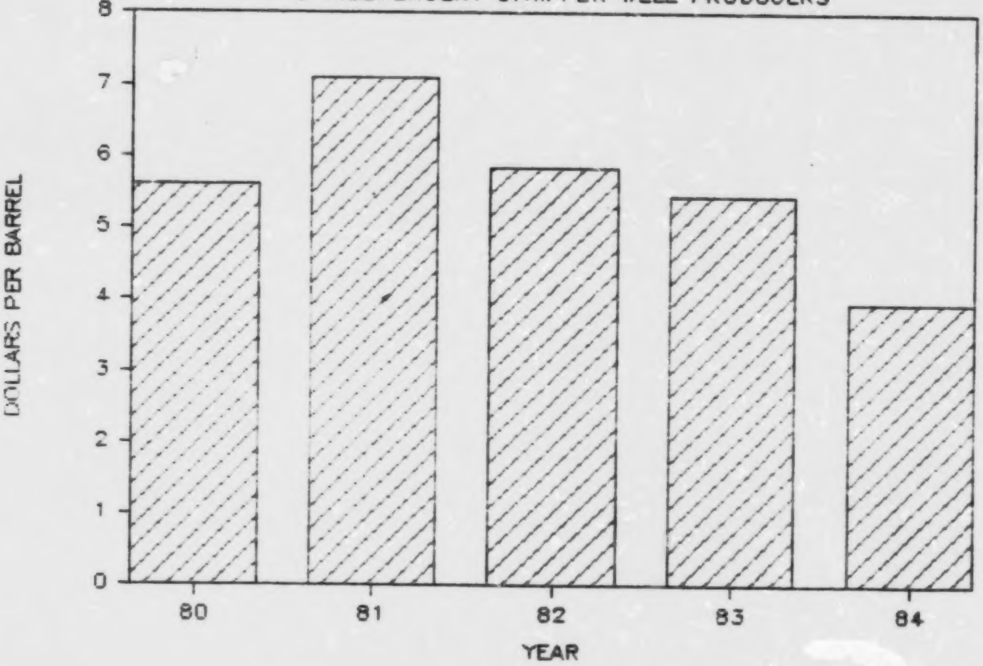
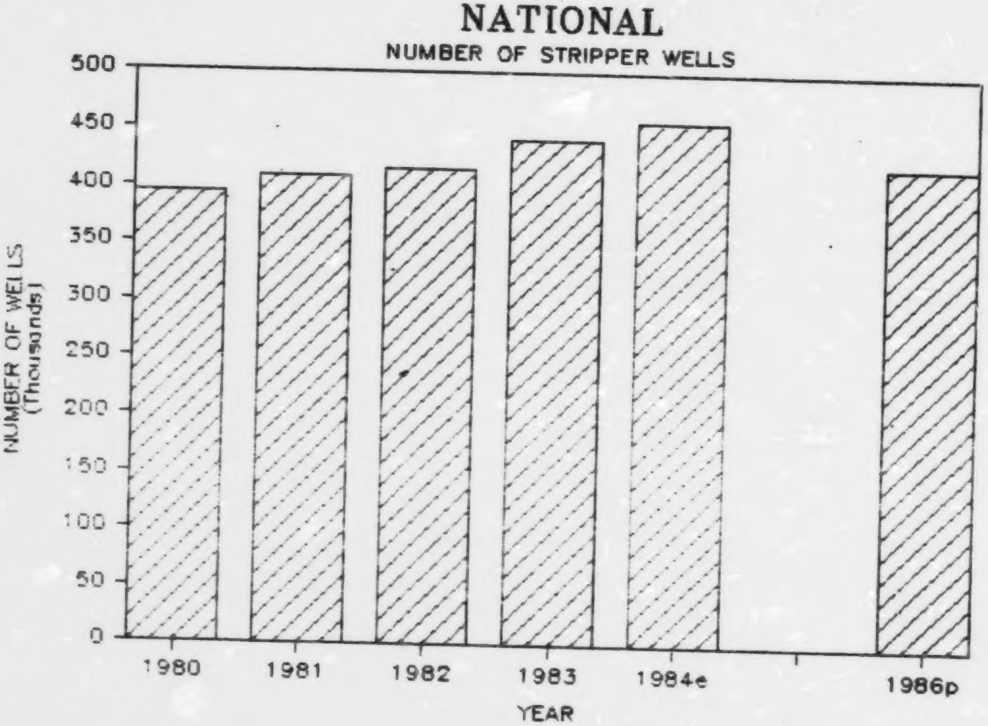


CHART THREE



NATIONAL

NUMBER OF STRIPPER WELLS

CHART FOUR

NATIONAL

ABANDONMENT OF STRIPPER WELLS

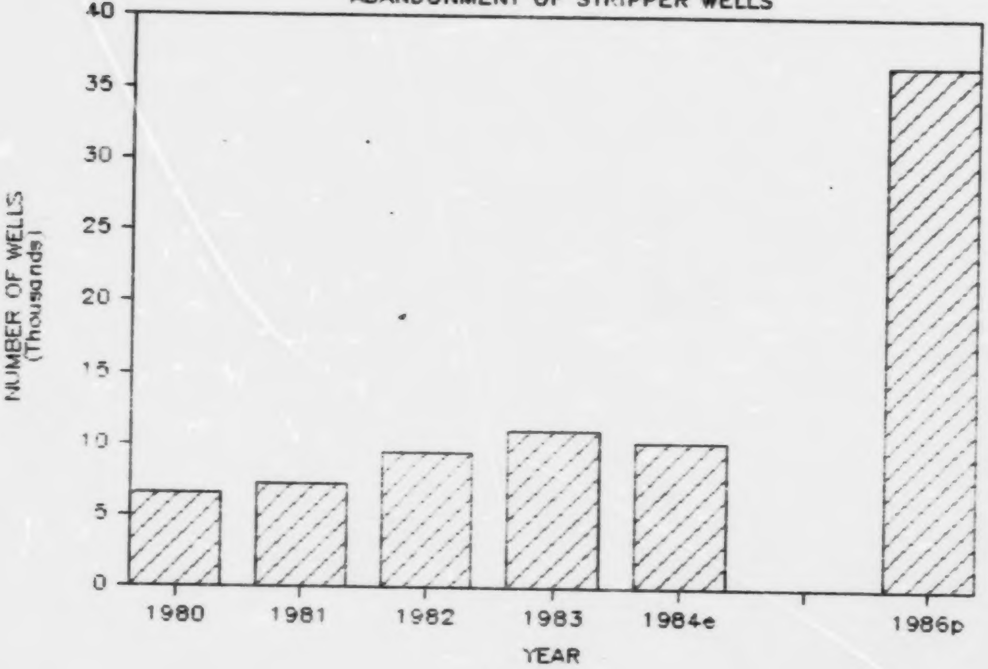


CHART FIVE

NATIONAL

STRIPPER WELL PRODUCTION

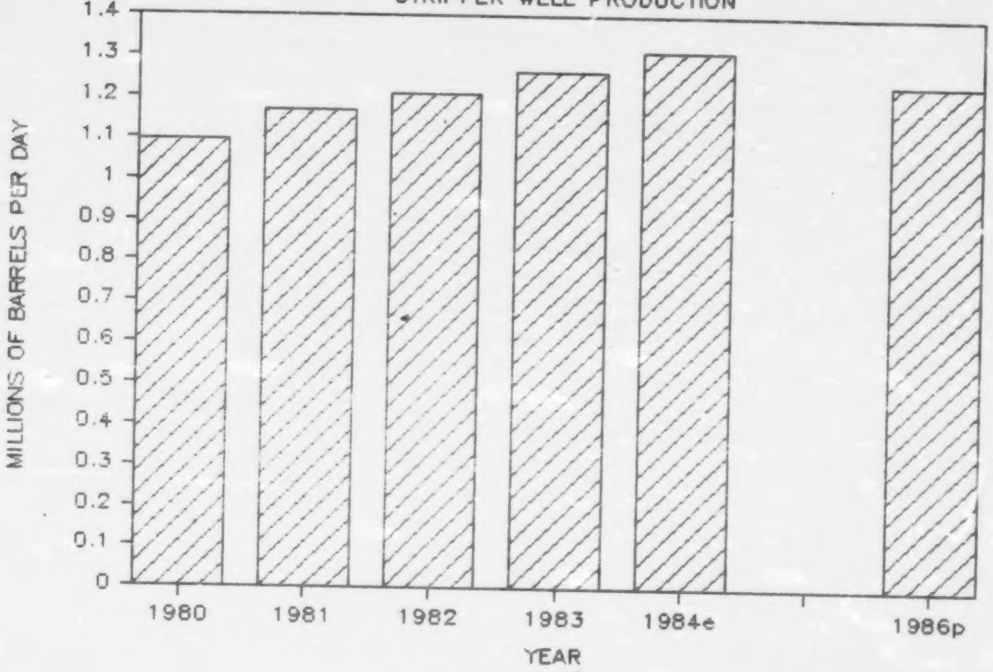


CHART SIX

NATIONAL

STRIPPER WELL RESERVES

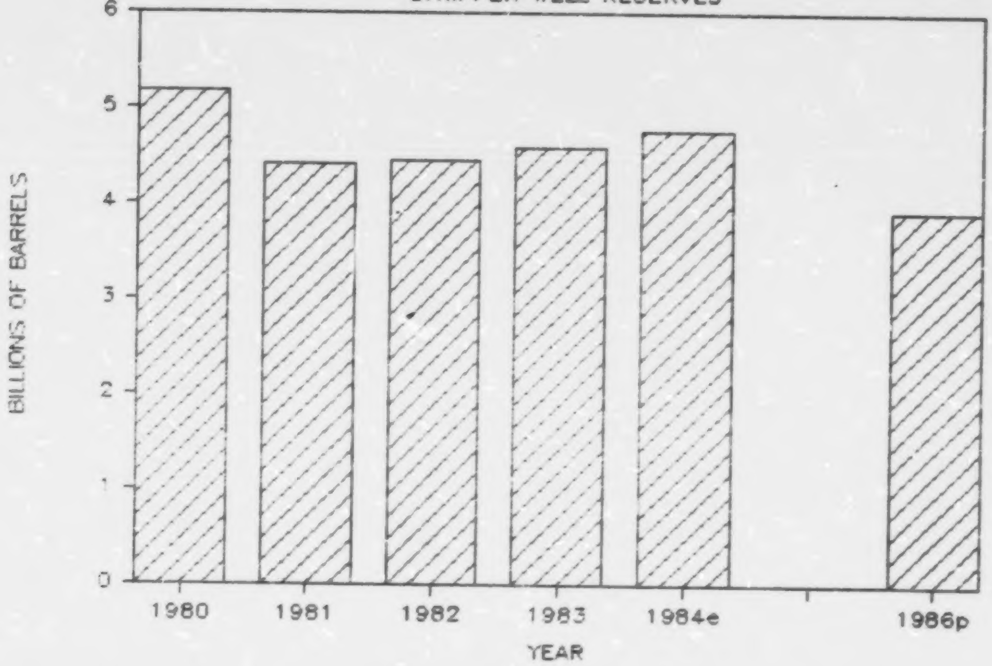


CHART SEVEN

IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY

Prepared for the
Interstate Oil Compact Commission

The RAM Group, Ltd.
6001 North Robinson
Oklahoma City, OK 73118

1985

IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY

Introduction

The purpose of this study is to forecast the impact of the Treasury Department's recent tax proposals on ongoing and projects enhanced oil recovery ("EOR") operations.

Enhanced oil recovery is the incremental oil that can be economically produced from a petroleum reservoir over that which can be economically recovered by conventional primary and secondary production methods. Primary methods rely on the natural reservoir energy to drive the oil through reservoir rock to producing wells. Over time, this natural energy drive dissipates, and energy must be added to the reservoir to produce significant amounts of additional oil.

Conventional secondary recovery methods introduce additional energy through the injection of water or gas, under pressure, into the formation at substantial additional costs. Enhanced oil recovery techniques are employed to achieve further production after primary and secondary recovery has been exhausted. Examples of enhanced oil recovery methods include: chemical flooding, miscible flooding, injection of carbon dioxide and thermal recovery.

Existing EOR projects currently account for 6% of U.S. daily oil production. The resource to which enhanced oil recovery may be applied in the future is very large, because conventional primary and secondary methods are expected to recover only about one-third of the oil originally discovered. Although much of the remaining two-thirds of the oil originally-in-place is not producible, a significant portion of this remaining resource constitutes the target for EOR.

Oil production by enhanced recovery is more costly than production by most conventional methods. Because of these high costs and heavy front-end investments required for most EOR projects, tax policies which reduce the after-tax cash flow available to producers will result in significant reductions in the number of projects undertaken and thus, the amount of oil recovered. Moreover, tax policies which hasten the abandonment of marginally economic fields remove the reserves remaining in the fields as a potential resources for enhanced recovery.

The Treasury Department's recent tax proposals would effect several tax provisions that currently encourage EOR projects. These proposals would change depreciation schedules and repeal the following tax provisions: percentage depletion; the expensing on intangible drilling costs; the deduction of qualified tertiary injectant expenses; and, the investment tax credit. Although the Treasury Department proposal would also lower the marginal tax rate and repeal the Windfall Profit Tax, these favorable changes would be more than offset by the increased taxes resulting from the other changes described above.

Major Findings

The study found that the Treasury Department's tax proposals would have a significant negative impact on EOR projects. The reduced after-tax cash flow available to producers under the Treasury tax proposal would effect enhanced oil recovery in the United States in the years ahead as follows:

-- 7,908 fewer EOR projects would be undertaken;

-- oil production from EOR projects would be reduced by 1,832 million barrels;

-- royalty payments would drop by $10,351,000,000;

-- property and severance tax payments would fall by $2,228,000,000;

-- state income tax collections would be reduced by $635,000,000;

-- federal income tax collections from third parties would fall by $1,313,000,000;

-- reductions in payments to suppliers of good and services would equal $34,174,000,000;

-- equipment purchases would fall by $2,250,000,000;

-- intangible drilling costs for EOR wells would decrease by $896,000,000

Basis for Projections

These projections are based on an EOR data base and economic model developed by the Bartlesville Energy Center, and on "Enhanced Oil Recovery," a report by the National Petroleum Council to the Secretary of Energy, dated June 21, 1984.

IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY (EOR)

	NATIONAL
REDUCTION IN EOR PRODUCTION	1[illegible]832 (MMBBLS)
REDUCTION IN ROYALTY PAYMENTS	1[illegible]351 (MM $)
REDUCTION IN PROPERTY AND SEVERENCE TAX PAYMENTS	[illegible]226 (MM $)
REDUCTION IN STATE INCOME TAX COLLECTIONS	[illegible]635 (MM $)
REDUCTION IN FEDERAL INCOME TAX COLLECTIONS	[illegible]3 (MM $)
REDUCTION IN PAYMENTS TO THIRD PARTIES	34,174 (MM $)
REDUCTION IN EQUIPMENT PURCHASES	2,250 (MM $)
REDUCTION IN IDC'S FOR EOR WELLS	896 (MM $)

NOTE: All impacts are cumulative.

Basis:

- National Petroleum Council Enhanced Oil Recovery, June 21, 1984
- Bartlesville Energy Center EOR Data Base And Economic Model.
- Actual state by state current property and severence tax rates.
- Actual state by state income tax rates.
- Provisions of Treasury Secretary Regan's November 27, 1984 tax proposal regarding:
  - Intangible investments
  - Tertiary injectants
  - Revised ACRS depreciation
  - No tax credit
  - Modified depreciation schedules
- Crude oil price of $30.00 per barrel
- 10% rate of return on investment

Senator **Boren**. So again I want to commend the chairman for focusing today specifically on problems of energy production, and say again that I think in writing a tax code we want to make sure that the Tax Code is fair, that there are worthwhile goals and objectives that a tax code should encourage. And I believe that domestic energy production, particularly as it contributes to our national security, is one of those very worthwhile goals.

And I hope we will look again at the proposal to end percentage depletion and not include that in the final version of the bill. I also hope that we will look specifically at the treatment of royalty owners.

I am going to write to all the budget conferees today urging that, since they are having problems coming up with the deficit reduction they need, that they take a serious look at an oil import fee on both crude and refined products.

[Senator Boren's prepared testimony follows:]

NEWS
From U.S. Senator David L. Boren
of Oklahoma

453 Russell Senate Office Building
Washington, D.C. 20510

Press Secretary: Barbara Webb
(202) 224-4721

STATEMENT of U. S. SENATOR DAVID L. BOREN

before the Senate Finance Committee
Wednesday, July 17, 1985 - 9:30 a.m. - Dirksen - Room 219

Mr. Chairman:

I am pleased to be here today to participate in this discussion of the Administration's Tax Plan and it's impact on the energy industry.

Let me state at the outset, that I believe that there is nothing wrong in using the tax code to encourage the accomplishment of worthwhile goals. It is absolutely vital to our national security that we should encourage energy independence and the provision of an adequate supply of energy at a reasonable cost.

The current Treasury proposal would end percentage depletion for independent producers except in the case of stripper wells, and would totally end the allowance for all royalty owners. This coupled with an end to investment tax credits, would seriously hurt the domestic energy industry. It would damage our hopes for increased domestic energy independence and it would increase the already intolerable trade deficit.

Mr. Chairman, I am very concerned with the tone and direction of the Treasury proposals. They would do nothing to encourage domestic production, they would in fact discourage production. As a result of these proposals we as a nation, over the next five years, would lose approximately 465 million barrels of oil equivalent in added reserves. That is more Mr. Chairman than we have stored in the Strategic Petroleum Reserve!

I am also concerned Mr. Chairman, about the impact of this proposal on royalty owners. They are already one of the highest taxed groups in the country. The majority of royalty owners are retired and living on a fixed income. I see nothing "fair" about increasing their taxes.

The most important question remains to be asked, why tax domestic energy at all? Why do we have the federal Windfall Profits Tax and state severance taxes? Why don't we tax foreign energy production? Mr. Chairman, I am prepared to introduce legislation that will require an import fee on foreign crude oil and foreign gasoline and gasoline blend stocks. Now is the time to make permanent the gains we made in energy conservation during the late 70's and early 80's. We also have before us a tremendous opportunity to make headway against the growing federal deficit. In fact, I have written the Senate Budget conferees urging them to consider my oil import fee as a means to reduce the deficit. Mr. Chairman, it is important that we take steps now to stabilize the long-term future of our vital domestic energy industry.

Percentage Depletion:

Mr. Chairman, I would like to discuss in some detail the concept of percentage depletion. Percentage depletion is a tax provision that dates back to before 1920 and applies not just to oil and gas, but to other natural resources such as coal. The tax laws often distinguish between capital and income so capital is returned for future investments. Unlike other capital assets, such as a building, "wasting assets", like petroleum, have no residual value once they are depreciated. A building which is depreciated over 30 or 40 years and which therefore would carry a book value of zero, can still have a market value equal to or even greater than its original purchase price. By contrast, after oil from a deposit is pumped there is no residual value. As a consequence, the recovery of capital which occurs through use of the depletion allowance more closely parallels the actual rate at which capital is consumed. As a mechanism, the depletion allowance is much closer to being "tax neutral" than other more conventional capital recovery mechanisms.

From 1926 to 1969, oil operators were generally allowed to deduct 27.5% of gross income from an oil property as percentage depletion. The 1969 Tax Act cut the depletion percentage to 22%. In 1975, a new tax law eliminated percentage depletion on oil properties for all major oil companies. But the law allowed small, non-integrated independent producers to keep their percentage depletion deduction at 22% until 1980, then gradually declining to 15% in 1984.

Mr. Chairman, let me summarize briefly the results of a study commissioned by the Interstate Oil Compact Commission to measure the impact on just Oklahoma of the President's proposal to repeal the percentage depletion allowance :

- drilling expenditures would be reduced by $55,883,700 annually;

- employment would be reduced by 2,794 jobs annually;

- royalty owners would pay $210 million in increased taxes, while working interest owners would pay an additional $239 million between 1986-90;

- daily oil and natural gas production would fall by 2,468 barrels of oil equivalent;

- annual revenues from oil and gas sales would fall by $17,679,575;

- state tax receipts from oil and gas production would decline by $1,252,598 annually;

- additions to Oklahoma's oil and natural gas reserves would be reduced 27,941,850 barrels of equivalent, during the six year period.

Nationally, between 1986 and 1991, the domestic oil and gas reserve additions that would be lost as a result of this tax proposal total 465 million barrels of oil equivalent. By foregoing this drilling the Treasury expects to collect an additional $4.2 billion in tax revenues. However, the reserves lost exceed the 451 million barrels stored in the National Strategic Petroleum Reserve at a cost to the taxpayers of $14.5 billion. Since the reserves are roughly equal, it appears that the federal government could have saved $10.3 billion by doing nothing at all.

Mr. Chairman, I recently held a public meeting in Oklahoma City to discuss the impact of these proposals. The meeting focused particularly on the unfair impact on royalty owners who lose all percentage depletion under this proposal, even if their production is stripper production. Over 500 people traveled from across Oklahoma to attend this meeting, even though it was held at the height of the wheat harvest, an inconveniant time for many of those affected. I have brought with me today a number of the comments which I received. At that meeting I learned that 73% of royalty owners in Oklahoma are over 61 years of age; the average royalty check in Oklahoma is less than $200; nearly 30% are widows, 12% disabled, and 5% live in health care facilities. I find nothing "fair and equitable" about any tax that singles out such a group of people. In fact this proposal will make royalty owners one of the highest taxed groups in the country. In most states royalty owners currently pay windfall profits tax, severance taxes, ad valorem taxes, and finally state and federal income taxes. That to me seems more than a fair share.

Mr. Chairman, I would like to submit for the record testimony I received from Mr. Jim Stafford, Executive Director of the National Association of Royalty Owners. I would urge my colleagues on the Committee to consider carefully Mr. Stafford's proposal to treat oil and gas royalties as capital gains. I think my colleagues will find Mr. Stafford's comments both informative and entertaining.

Mr. Chairman, while I agree that the intangible drilling deduction has been wisely included in the current Treasury proposal, some discussion still persists that efforts might be made to remove the deduction from the final version. Such an action would be a disaster for domestic energy production and a serious blow to our national security. It would reduce drilling by 30,166 wells a year from 1986-91. It would reduce daily oil and natural gas production by 757,494 barrels of oil equivalent. Annual revenues from oil and gas sales would fall by almost $5.5 billion. Before any of our colleagues give any consideration to such a proposal, I urge them to read a summary of the Interstate Oil Compact Commission study of the first Treasury Proposal, which I ask consent to attach to these remarks for the record.

Mr. Chairman, I would like to make one more point before I close. This nation has two key policies with regard to petroleum and petroluem products which are inexctricably linked. Our basic energy policy is to allow market forces to set prices for both crude oil and refined products, and to allocate their use. Our national security policy entails the reduction of dependence on unsecure foreign imports of crude oil and petroleum products, and maintaining the capability to meet essential energy product needs in the event of a supply disruption or a military mobilization. We are, in effect, replacing undue dependence on crude oil imports with undue dependence on the products refined from crude oil.

Current operating refinery capacity has fallen to only 14 million barrels per day. Studies reveal that U.S. refining capacity is at or below the level required to meet our basic security requirements. Gasoline and other refined product dependence is weakening a strategically vital industry. The continued loss of domestic refining capacity caused by increasing gasoline imports is undermining not only our national energy policy, but our national security policy as well.

SUMMARY OF ECONOMIC IMPACT OF OIL IMPORT FEE:

Given that the fee would be $5 per barrel on crude oil and $10 per barrel on refined gasoline and gasoline blend stocks then:

- $8.6 billion in direct annual import fees to the federal govt.

- $4.4 billion in additional Windfall Profits Tax as a result of increased domestic drilling

- $5.59 billion in additional federal income tax as a result of increased domestic drilling

- oil and gas sales would increase $4.1 billion annually as a result of increased domestic activity.

- the general economic benefit of such an increase would be:
    - 119,000 new jobs
    - $4.3 billion in new wages and income
    - $2.8 billion in increased economic output in related industries
    - $1.3 billion in new federal income tax receipts

- we would add 2.8 billion barrels of oil equivalent to our reserves

- daily oil and gas production would increase 376,500 barrels of oil equivalent

- the number of wells drilling would increase 15,000

These numbers are rough estimates provided by the [illegible] Group, LTD. of Oklahoma City.

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The CHAIRMAN. I thank the distinguished Senator.

Do you have any opening comments, Senator Bradley?

Senator BRADLEY. No, I don't, Mr. Chairman; although I am pleased to hear Senator Boren saying that he is suggesting an oil import fee. That's all I heard when I walked in.

The CHAIRMAN. I am not sure you would have agreed with the rest of it.

Senator BRADLEY. Oh, all right. [Laughter.]

Senator BOREN. We finished on the right note, I can see.

The CHAIRMAN. Let us start with our first panel, then: Charles DiBona, the president of the American Petroleum Institute, and Jon Rex Jones, the president of the Independent Petroleum Association of America.

Gentlemen, although we allow Senators to go without restrictions on time, we don't allow our witnesses to do that or we would never get through our hearings. Your statements will be in th record in their entirety, and if you can confine yourselves to 5 minutes you will find we will have ample questions to ask you that will keep you here for a good, long time.

Mr. DiBona, go right ahead.

STATEMENT BY CHARLES J. DiBONA, PRESIDENT, AMERICAN PETROLEUM INSTITUTE, WASHINGTON, DC

Mr. DIBONA. Thank you, Mr. Chairman.

We have submitted, as you mentioned, a longer statement, and we would like to ask your permission to add a few technical sections to it.

The CHAIRMAN. Without objection.

Mr. DIBONA. A current misperception is that the petroleum industry does not pay its share of Federal taxes and that it is specifically favored by tax perferences, tax breaks, and loopholes. This notion is dead wrong, and we trust it will not be the basis for this committee's decision on future taxes.

If you look at the chart shown here, you will see the latest tax rate work of the staff of the Joint Committee on Taxation, which shows that the petroleum industry's effective Federal income tax rate is well above that of the average of other industries. This is true on both a U.S.-only basis and a worldwide basis. The petroleum industry rate is 28 percent more than the average of other industries.

Moreover, when the so-called windfall tax is added, as was mentioned by Senator Long, as it should be, a tax applied uniquely to the petroleum and not one considered in the committee staff's calculations, the tax rate on petroleum was above that of any of the other 29 major industries studied.

The tax reform package you are reviewing would increase taxes on the petroleum industry above their already disproportionately high levels and cause some reduction in future domestic petroleum production.

The tax payments of our industry are important, because they will affect future petroleum supplies and prices. Today there is a surplus of oil in this country, and prices are softening—not because we are self-sufficient but because there is a surplus elsewhere that we can import. Our current comfortable position is the result, in part, of our decision to decontrol oil, with the conservation and tremendous U.S. drilling effort it set off.

But this is a highly cyclical industry, and we are nearing a turning point. By the early or mid-1990's, about the time that some of today's exploration activities might be bearing fruit, the situation is likely to look more like the nervous times of 1973 and 1979 than the good times of 1985.

Exploratory drilling completions for oil and gas are down almost 30 percent from their peak in 1981. Oil consumption rose last year for the first time since 1979, and imports increased 8 percent. U.S. imports are now equal to the one-third level we had in 1973. Various studies predict that the current OPEC surplus will dwindle to a problem level by the early to mid-1990's, even if we avert a crisis in the Mideast. By that time U.S. imports, under current tax law, could be as much as half of our consumption. In other words, we may be highly vulnerable to a new energy problem in a relatively few years.

Public policy, wisely shaped, could limit the adverse affect of these changes, and one wise policy could make them worse. In this context, the retention of expensing of intangible drilling costs is critical. Elimination of IDC expensing would mean the loss of 900,000 barrels a day of oil equivalent production in 1990 and 1.6 million barrels a day by 1995. This would be more than twice the shortfall we suffered in 1979. In the mid- to late-1990's this alone would raise oil prices by $4 a barrel, with no crises, and add $35 billion in 1985 dollars to our import bill. If an oil crisis occurred in 1992, this step alone would increase oil prices by $9 a barrel, but GNP by an added 1.4 percent, to a total drop of 6.3 percent, and add commensurately to unemployment and the Federal deficit.

I should note that both major companies and independents are needed to find and produce oil. Expensing of IDC's helps both do their jobs. Majors tend to drill fewer, more expensive wells, often offshore in a more hostile environment, but find larger reserves. Independents drill more, smaller wells. The two contribute roughly half each to the petroleum found in this country. Both are clearly needed.

There are positive elements in the President's approach, including the lower corporate rates, the treatment of dividends, and the indexing of depreciation. But there are also serious negatives which would discourage future investment and economic growth. These include the recapture provision, a totally arbitrary new tax which penalizes those who helped the recovery through their heavy recent investment; the phasing out of percentage depletion, which will reduce an important incentive for independents; the elimination of the investment tax credit, which will discourage investment and job creation, and natural resource, manufacturing, and export industries; and the new rules for foreign source income which will weaken U.S. companies in competition abroad.

In addition, the new minimum tax may well cancel the effect of what investment incentives remain.

In sum, we argue that, both in fairness and in the interests of our future energy supply, you should recognize that the petroleum industry now pays more than its share of taxes. This country may critically need domestic oil production in a few years, and your decision could determine whether as a nation we are simply uncomfortable or truly vulnerable.

Thank you.

The CHAIRMAN. Thank you. Mr. Jones.

[Mr. DiBona's testimony follows:]

WRITTEN STATEMENT

ACCOMPANYING

TESTIMONY OF

CHARLES J. DiBONA

PRESIDENT

AMERICAN PETROLEUM INSTITUTE

Before The

UNITED STATES SENATE COMMITTEE ON FINANCE

Regarding

IMPACT OF THE PRESIDENT'S TAX PROPOSALS
TO THE CONGRESS FOR FAIRNESS, GROWTH AND SIMPLICITY
ON THE NATION'S ENERGY SECURITY

In Behalf Of

AMERICAN PETROLEUM INSTITUTE

Washington, D. C.

July 17, 1985

I

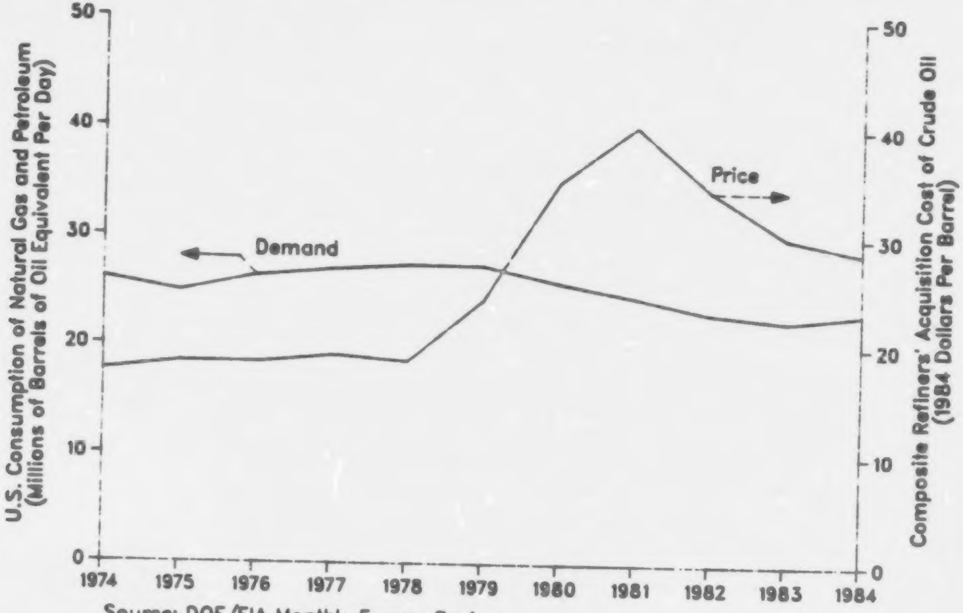
TAXES, PROFITS, AND INVESTMENT IN THE PETROLEUM INDUSTRY

Falling prices and demand, high effective tax rates, and continuing uncertainty about future prices have made the operating environment for the U.S. petroleum industry difficult during the last four years. As a result, capital expenditures in the industry have fallen by a third since 1981. The types of tax changes now being discussed could make new investment in the industry even less profitable. Just the discussion of such options has created enough uncertainty about the future of the industry to slow investment. Actual implementation of many measures being discussed would make an already difficult situation much worse. This section reviews briefly the recent experience of the industry in terms of its economic environment, its profitability, the taxes it pays, and its investment in new capital.

Prices and Demand

The dollar price paid for crude oil has fallen annually since it reached a high in 1981. When adjusted for inflation, the price dropped 29 percent from 1981 to 1984. (See Figure 1.) U.S. demand for petroleum fell annually from 1978 to 1983, to be

Figure 1: Petroleum Prices and Demand



Source: DOE/EIA Monthly Energy Review.

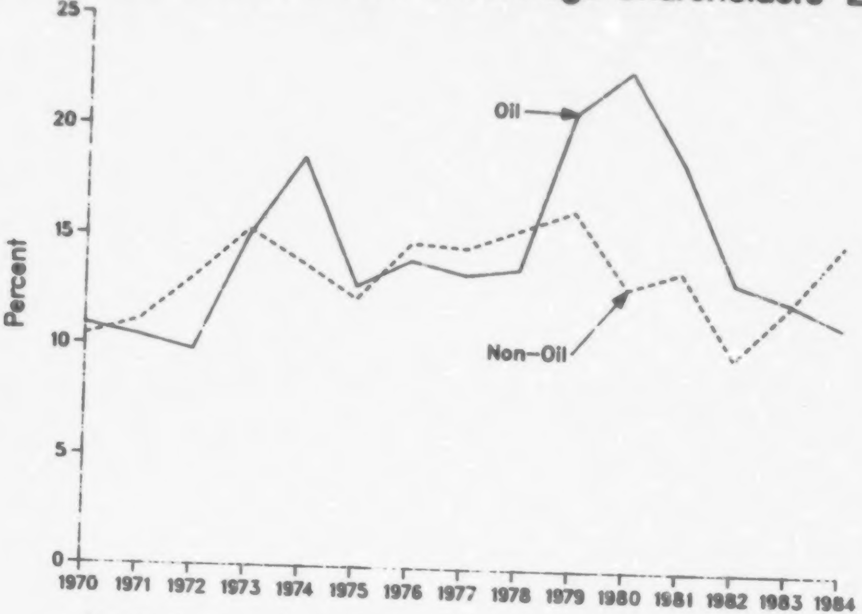
reversed for the first time in 1984 by a 3 percent annual gain: from 1978 to 1984, demand fell 15 percent. The drop in the other industrialized OECD countries has been similar. The industry has had a very different experience over the last four years from that which many observers expected in the late 1970s, when they predicted that real oil prices would climb indefinitely and consumers would have little ability to reduce their demand for natural gas and petroleum products.

Profits and Profitability

Over the long term, the profitability of investment in the petroleum industry is about the same as that in other industries. For example, over the 15 year period 1970-1984, the median annual return on investment for the 21 largest petroleum companies taken together was 13.4 percent; that for comparable non-petroleum manufacturing firms was 13.6 percent. (See Figure 2.)

With the falling prices and demand of recent years, however, the profits of the U.S. petroleum companies have suffered. For the 21 leading U.S. oil companies, taken together, 1984 earnings were 36 percent below the peak they reached in 1980. As one might expect, this drop in earnings has also hurt profitability, which fell annually from 1980 to 1984.

Figure 2: Relative Profitability of Petroleum Industry: Net Income as a Percent of Average Shareholders' Equity



Source: Oil companies, American Petroleum Institute; Non—oil companies, Standard & Poor's Compustat data base.

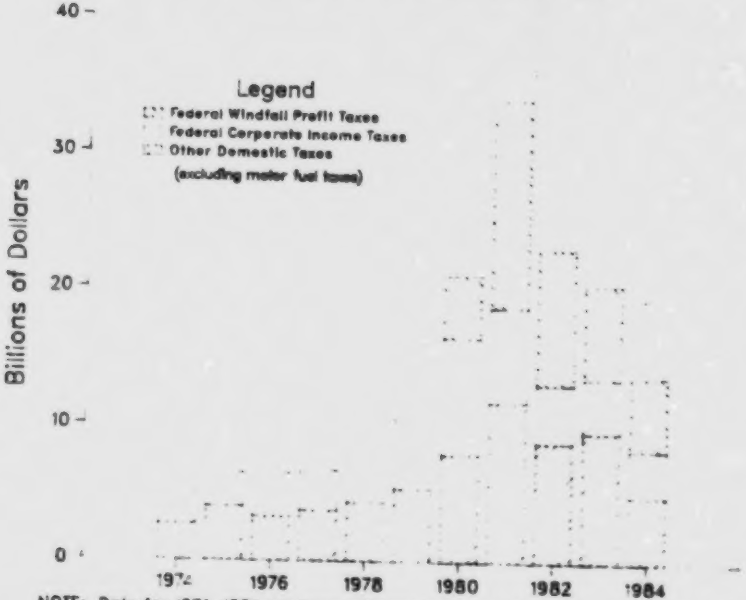
Current Taxes

The petroleum industry is and has been a major taxpayer at the federal, state, and local levels. This presentation focuses on two federal taxes, the corporation income tax and the Crude Oil Windfall Profit Tax, a tax imposed only on oil production. Of course, motor fuel excise and most severance taxes are targeted on the petroleum industry and its products. Many state and local governments also collect other significant revenues from the industry. In 1984, $29.3 billion in domestic taxes were levied on the 21 leading petroleum companies and their products, two-thirds of which involved taxes other than federal income or Windfall Profit taxes. Figure 3 displays the domestic taxes (excluding motor fuel taxes) paid by this group during the period 1974-84. They also paid substantial foreign taxes.

Studies by the staff of the Joint Committee on Taxation, the Petroleum Industry Research Foundation, Inc. (PIRINC), and the American Petroleum Institute all show that petroleum companies tend to pay higher effective corporation income tax rates than other companies. This is true for both their domestic and foreign operations.

The Joint Committee on Taxation found that 23 leading petroleum corporations paid 21.3 percent of their pre-tax U.S. income in federal income tax for 1983, while the average for all the corporations they examined for 1983 was 16.7 percent.

Figure 3: U.S. DOMESTIC TAXES PAID BY LEADING PETROLEUM COMPANIES



NOTE: Data for 1974-1981 are from a Price Waterhouse sample of 17 leading companies. Data for 1982-1984 are from API samples. 1982 data are from 19 companies. 1983-1984 data are from 21 companies. Differences typically involve small firms.

According to the Joint Committee on Taxation study for the period 1980-83 the oil companies average effective federal income tax rate was 23 percent while during the same period the average for all industries was 18 percent. Similarly, PIRINC recently found that during 1980-1982, the large U.S. petroleum companies paid federal income taxes at a three-year average rate of 26 percent compared to an average rate of 16 percent for the nearly 200 large non-oil companies included in the Joint Committee on Taxation study.

These studies examine only the corporation income tax. Because the Windfall Profit Tax is deductible from income taxed under the corporation income tax, the figures actually understate the effective corporation tax rates that the petroleum industry would have faced in the absence of the Windfall Profit Tax.

The Windfall Profit Tax, of course, should be considered an integral part of the petroleum industry's federal tax burden. The industry paid $67.9 billion of Windfall Profit Tax from its enactment in 1980 through the first half of 1984. Because oil prices are set in a world market, oil companies cannot pass much of this tax forward in higher prices. Thus, this revenue is a direct transfer from the petroleum industry to the federal treasury.

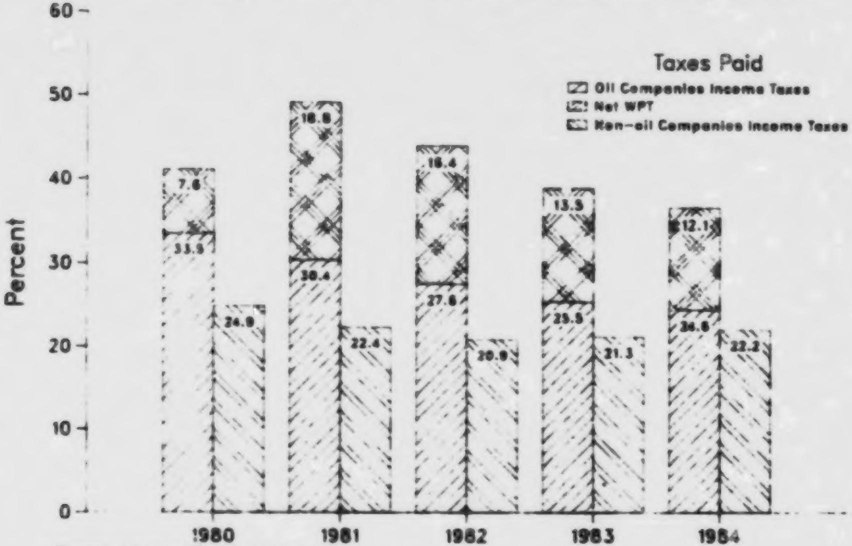
When the corporation income tax and Windfall Profit Tax are considered together, the American Petroleum Institute has found that in 1984, the leading 21 companies in the petroleum industry had an effective tax rate of 37 percent --two thirds higher than that for similar firms in non-petroleum industries. (See Figure 4.) The differential was even greater in earlier years, reaching a peak of 120 percent in 1981, when the leading petroleum companies paid 49 percent of their income to the federal government through just these two taxes. The 1980-83 average for petroleum was 43 percent.

In sum, despite its difficult circumstances in recent years, the petroleum industry continues to pay higher tax rates than other industries. This is true even if one ignores the Windfall Profit Tax and its contribution to the industry's high rate. Still higher taxes, which might result from recently discussed tax changes, would aggravate those circumstances further.

Capital Expenditures

As the profitability of new investments in the industry has fallen, the industry's level of capital expenditure has fallen as well. Despite a 3 percent rise, after inflation, from 1983 to 1984, domestic capital expenditure by the 21 leading petroleum companies fell 33 percent from its peak in 1981 to 1984. (See Figure 5.) High price expectations in the late 1970s led the industry to undertake many high-cost and high-risk ventures that have since been abandoned in the face of changing economic circumstances. This experience has made industry planners more

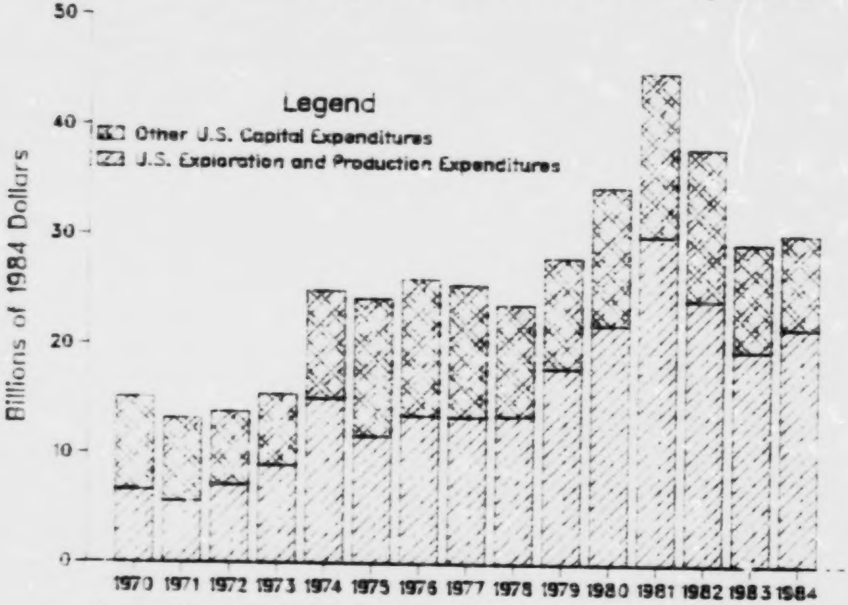
Figure 4: Comparative Federal Tax Burden of Leading U.S. Oil and Non-oil Industrial Companies



Source: American Petroleum Institute

Note: 21 Oil and 100 Non-oil Companies. Oil income taxes shown for 1980–1984 are what would have been paid without the Windfall Profit Tax, which is shown net of the income tax effect. In the WPT computational procedure, the WPT is deducted from income, and income tax is levied on the residual. Therefore, if there were no WPT, the income tax would be higher, as shown above. WPT is not shown for Non-oil companies because the amounts are negligible.

Figure 5: Total Domestic Capital Expenditures of 21 Leading U.S. Petroleum Companies



Source: American Petroleum Institute.
Note: Figures deflated by GNP deflator.

sensitive to risk and less willing to spend money on new capital when future prices and taxes are so difficult to predict.

Conclusion

Falling prices and demand, coupled with high effective tax rates, have discouraged new investment in the petroleum industry in recent years. Continuing uncertainty about future prices and taxes also hurt the incentive to invest. Adoption of many of the tax changes discussed in recent months would make the situation more difficult still for U.S. companies, pushing down domestic exploration, development, and production, and forcing the U.S. to depend more heavily on foreign sources and foreign petroleum companies for its petroleum supply.

II

FEDERAL TAX POLICY AND THE NATIONAL SECURITY

Concern for the national security has traditionally played an important role in framing policy, including tax policy, that affects the level of domestic petroleum production. This concern has become especially important over the last 15 years as the world oil market has moved with little warning from one crisis to the next -- and from circumstances first favorable and then disfavorable to domestic petroleum production. In 1975 and 1979, acting under Congressional mandate in Sec. 232 of the Trade Expansion Act of 1962, two Secretaries of the Treasury -- one in a Republican and the other in a Democratic administration -- found that continuing dependence on oil imports threatened the national security. As a result, they recommended that policies be adopted to encourage increased domestic production of energy.

The status of the world oil market and domestic energy production and consumption, with their implications for U.S. oil imports, remains uncertain and unpredictable. In a recent study, Henry Schuler of the Center for Strategic and International Studies found that oil imports continue to present a threat to the national security like that the Treasury found in 1975 and 1979. Many other observers of the world oil market agree.

A change in the tax law that discourages domestic petroleum exploration and production -- notably elimination of current expensing of intangible drilling costs -- would increase U.S. demand for imported oil. Greater U.S. demand for oil in the world market would have three effects that are important to the national security:

(1) It would increase the world price of oil.

(2) It would increase the cost associated with any disruption in access to imported oil.

(3) It would increase the probability of such a disruption.

These effects would likely precipitate reactions by the United States and its allies that would ultimately help ameliorate the effects of higher U.S. imports, but those would in themselves impose costs on the U.S. and its allies -- particularly in the interim period while new supplies were being developed. And that "interim" period could be very long, indeed, since many years would be required to re-establish an active industry and, then, find and develop new oil. Thus, these arguments apply not just today, but for a long period in the future.

Those responsible for approving changes in the current tax code should keep in mind that changes that increase U.S. demand for imported oil would increase the world price of oil, increase the economic cost of a disruption in imported oil, and potentially increase the likelihood of a disruption. Tax changes considered in recent months would have induced changes of this kind that would be large enough to:

(1) Hurt the U.S. and its allies economically:

(2) Weaken their ability to pursue a mutually advantageous foreign policy:

(3) Help the Soviet Union and strengthen OPEC: and,

(4) In general, increase the cost of pursuing America's principal foreign policy goals.

In the past, those responsible for the tax code have avoided these problems by crafting a code that allows domestic producers to remain competitive with imports. Those now responsible for reviewing the code can avoid these problems in the same way.

III

THE PRESIDENT'S TAX PROPOSALS

An Overview

The President's Proposals for revising the taxation of business income would achieve three major improvements:

1. Significantly reduced rates;
2. A start -- although an extremely modest one -- toward elimination of double taxation of dividends; and,
3. Indexing of depreciation allowances.

Thus, the tax system would -- for the first time -- recognize that high rates diminish incentives to save and invest, that dividends are unjustifiably taxed twice, and that inflation erodes the buying power of the profit dollar.

Yet, other changes and questions raised by the Proposals cause us seriously to doubt that their over-all impact on capital investments would be positive:

1. Decreased investment incentives -- for example, loss of the investment tax credit and percentage depletion;
2. Increased complexity -- for example, the proposals on taxing foreign source income and capitalizing so-called "construction interest;"
3. Increased uncertainty -- for example, ill-define depreciation categories;

4. Reduced cash flow as the result of retroactive recapture of depreciation allowances already taken; and,

5. A new minimum tax with a rate so high that it may cancel the effect of investment incentives for many taxpayers.

Unless the Congress can satisfactorily resolve these major concerns, we fear the general economic consequences of the Proposals. We also have specific serious concerns about petroleum taxation. Particularly critical problems arise from the proposal to tax foreign-source income on the "per country" basis rather than the "over-all" basis.

This statement will concentrate on the capital cost recovery proposals -- intangible drilling costs, percentage depletion, investment tax credit, and CCRS. But the industry is also concerned with the rate recapture provision, the alternative corporate minimum tax, and the taxation of foreign source income.

Intangible Drilling and Development Costs (IDCs)

The most important aspect of capital cost recovery for petroleum exploration and production operations is the current deduction ("expensing") of intangible drilling and development costs (IDCs). Fortunately, the Administration has recognized the adverse impact on domestic production and national security that would follow from eliminating expensing of IDCs, and has opted to retain current tax treatment.

The critical importance of expensing IDCs is aptly shown in the results of a recent API study of the impact of requiring capitalization of IDCs with recovery through cost depletion and depreciation as proposed in Treasury I. Postponing the recovery of IDCs would reduce drilling activity and future domestic production rates would be cut by almost 900,000 barrels per day of oil (or oil equivalent) by 1990 and 1.6 million barrels per day by 1995. The predicted loss in 1995 would be more than twice the shortfall suffered during the gasoline lines of 1979. In the mid to late 1990s, this alone could raise oil prices by $4 a barrel and add $35 billion (in 1985 dollars) to the nation's annual import bill.

IDCs are costs incurred for items which, in themselves, have no salvage value and are "incidental to and necessary for the drilling of wells and the preparation of wells for the production of oil or gas." Treas. Reg. Sec. 1.612-4(a). Such costs expressly include wages, fuel, repairs, hauling, supplies, etc., which are incurred in the drilling of wells, in the clearing of ground, and in the construction of derricks, tanks, and other physical structures that are necessary for the drilling of wells and the preparation of wells for the production of oil or gas.

Under Sec. 263(c) of the Internal Revenue Code and Treasury Regulations promulgated thereunder, taxpayers may currently deduct IDCs for oil and gas wells and wells drilled for geothermal deposits. Only the holder of a "working" or an "operating" interest (i.e., the interest which is burdened with the risks and costs of developing and operating the property) may currently deduct IDCs. Moreover, the election to deduct IDCs must be made by the taxpayer for the first taxable year in which such costs are incurred and is binding for all subsequent years. At the same time, the costs of all tangible equipment used in drilling and development activities are capitalized and recovered through 5-year ACRS with ITC. In the absence of current expensing, IDCs would be treated in the same manner as tangible equipment, since they are also capital in nature.

Sec. 291(b), which was added to the Internal Revenue Code by the Tax Equity and Fiscal Responsibility Act of 1982, reduced the amount of current IDC deductions by 15 percent for all corporations that are integrated oil companies. The 15 percent was allowed as a deduction ratably over a 36-month period, beginning with the month in which the costs are paid or incurred. The Deficit Reduction Act of 1984 further reduced the amount of current IDC deductions to 80 percent for corporations that are integrated oil companies with the remaining 20 percent allowed as a deduction ratably over the 36-month period. The amortized amounts are not eligible for investment tax credit and are subject to recapture on later disposition of the property under Sec. 1254.

Corporations which are nonintegrated oil companies are allowed to deduct 100 percent of their IDC expenditures currently. Similarly, all individuals are allowed to elect to deduct 100 percent of their IDC expenditures currently. However, if an individual elects to deduct the full amount, he must include the amount of "excess intangible drilling and development cost" in determining tax preferences for purposes of the alternative minimum tax. Treatment as a preference item can be avoided if the individual elects to deduct the costs under a 5-year schedule similar to ACRS and claim the investment tax credit (ITC) under Sec. 58(i)(4) -- or to deduct ratably over a 10-year period under Sec. 58(i)(1).

The following chart summarizes the current tax treatment of IDCs:

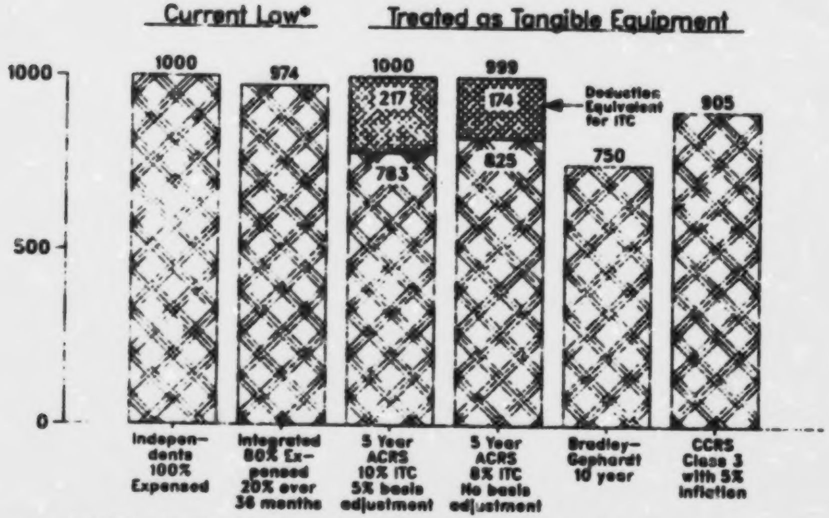
Corporations which are integrated oil companies	Corporations which are independent producers	Individuals
o Currently deduct 80 percent of IDCs:	o Currently deduct 100 percent of IDCs	o Currently deduct 100 percent of IDCs
o Amortize 20 percent over 36 months--no ITC.		o Tax preference item if currently deducted
		o May elect 5-year ACRS with ITC if not a limited partnership interest.
		o May elect ten-year amortization

While distinctions may have been made in their tax treatment, both the major integrated oil companies and the nonintegrated independents are needed to find and produce oil. Expensing of IDCs helps both do their job. Majors tend to drill fewer, more expensive wells, often in more hostile environments, but find larger reserves. Independents tend to drill more, less expensive wells. Each group contributes roughly half to the petroleum found in this country. Both are clearly needed. The current deduction for IDCs minimizes the adverse impact of the income tax on decisions to invest in oil and gas exploration and production, while delay of recovery of drilling costs would reduce the financial attractiveness to all concerned.

Figure 6 compares the present value of the recovery of IDCs under several proposals. As the Figure indicates, the full current expensing of IDCs allowed independent producers maximizes the present value of the cost recovery allowance, while the partial postponement in recovery for integrated firms reduces its value. The 5-year ACRS with 10 percent ITC available as an option for individuals yields a present value allowance equivalent to current expensing of IDCs at a risk-free 10 percent discount rate. In contrast, an extended recovery schedule for IDCs such as that proposed by Senator Bradley and Representative Gephart would reduce the present value of the allowance by 25 percent. Assignment of IDCs to the President's proposed Capital Cost Recovery System (CCRS) Class 3 would result in a reduction of almost 10 percent in the present value of the recovery allowance. Reductions of this magnitude could result in anticipated rates of return falling below an acceptable level for

Figure 6

Present Value of Various Cost Recovery Allowances for $1,000 of Investment in Intangible Drilling and Development Costs (IDC) Discounted at 10%



* Both the President's proposal and Kemp-Kasten retain current law.

177

otherwise viable drilling ventures. The consequence of this diminished incentive would be a decrease in drilling.

Although the election of 5-year ACRS with ITC instead of current expensing of IDC might appear to maintain equivalent rates of return, at least at a 10 percent discount rate, producers electing such treatment would suffer a cash flow detriment. Many members of the industry, both large and small, do not readily have the cash resources or borrowing ability to absorb the additional costs which would be caused by deferring deduction of drilling expenditures. For many taxpayers, the immediate cash flow generated by the IDC deduction can be an absolute prerequisite to participation in the industry.

In addition to impacting the overall decision to drill or not to drill, the current deduction of IDCs can also have a significant effect on the decision to "complete" a well once the target depth (the "casing point") has been reached and the formation has been evaluated. If the taxpayer is required to capitalize IDCs on productive wells -- rather than expensing them immediately -- the difference between the value of an immediate tax deduction for an abandonment loss and the present value of future cost recovery becomes an additional cost of completing the well. Thus, the economics may dictate that the well be plugged and abandoned even though it would be viable if only the return on the actual completion costs entered into the decision.

On the other hand, if the taxpayer is permitted to deduct IDCs regardless of the decision to complete the well or plug and abandon it, the sunk costs incurred in reaching the "casing point" can be ignored in the decision on whether to complete or abandon. The taxpayer then looks only to the costs of completing, equipping, and operating the well. If the anticipated value of the resulting production is forecast to cover the costs and yield an acceptable rate of return, the well will be completed even though the overall result including the "sunk" costs to the "casing point" might be a loss.

As the Committee on Ways and Means recognized in 1981, current expensing of all equity investment in plant and equipment is the most efficient cost recovery mechanism in terms of simplicity, neutrality, growth, and fairness. Current expensing makes the effects of the income tax neutral among industries and neutral on the decision to consume or invest. Replacing expensing of IDC with capitalization would be a step in the wrong direction away from a neutral tax system.

Depletion

The President's Proposals would phase out percentage depletion for all oil and gas production on other than stripper well production over a five-year period beginning on January 1,

1986. API believes this will adversely impact the search for domestic oil and gas.

Depletion is a capital recovery mechanism. An owner of an interest in an oil, gas, or mineral property incurs costs which, for tax purposes, are considered capital in nature. These include acquisition costs, such as lease bonuses, which are capital for financial and tax purposes and certain other costs, such as geologic and geophysical exploration costs, which are considered an expense item by accounting standards but are capitalized for tax purposes.

This capital must be recovered by "cost" depletion if percentage depletion is unavailable. Cost depletion is typically taken by the unit-of-production method -- which limits current capital cost recovery to an estimate of how much of the property's total remaining output is represented by current production. Thus, when a barrel of oil is produced, it is ratioed with remaining reserves and multiplied by the adjusted tax basis of the property involved to determine the amount of the current depletion deduction. For a long-lived property, this method of recoupment is the slowest method of capital recovery available under current law. Real costs of capital invested have thus been "under-recovered" in recent years primarily due to the effects of inflation. By contrast, ACRS investors in most types of manufacturing plant and equipment are able to recoup their investment within five years after operation begins.

Congress first adopted percentage depletion in 1926 as a replacement for "discovery value depletion." Percentage depletion is designed to encourage drilling activity and to approximate the cost of replacing reserves currently produced. The income generated by the sale of production from these reserves represents the consumption of a nonrenewable capital asset. As such, it is reasonable to consider the cost of replacing the reserves as the base on which recovery should be computed, rather than historical cost. Depletion calculated on the percentage method allows the owner of the oil or other wasting natural resource to recover a percentage of gross income subject to certain limitations. In the case of oil and gas, the current rate of percentage depletion is 15 percent; which is substantially below the current value of reserves in the ground as a percentage of wellhead price (about 25 percent by some estimates).

Many of the underlying reasons for enacting percentage depletion initially, i.e. high risk and high cost, justify its continuation today. Risks remain high; the industry experienced dry holes on over 85% of all wildcat wells drilled. Furthermore, costs per barrel of new reserves have risen dramatically. Finally, and perhaps most importantly, domestic production has exceeded domestic reserve additions by more than one third in the past decade and a half.

The Tax Reduction Act of 1975 added Sec. 613A of the Internal Revenue Code to eliminate percentage depletion on oil and gas production. Certain exemptions were provided, however, including a limited exemption for independent producers and royalty owners. The elimination of percentage depletion on oil and gas production of integrated oil companies in 1975 was, in part, a political reaction to the dramatic increases in oil prices that occurred after the 1973 Arab oil embargo. The retention of percentage depletion on certain limited production for eligible producers enables such operators to reinvest the risk capital necessary to drill prospects which have been made uneconomic for non-eligible producers due to the removal of percentage depletion. The marginal prospect remains important in the outlook for potential additions to domestic reserves.

U. S. proved reserves steadily declined from 1970 through 1983 despite increased oil prices and record capital outlays by the oil and gas industry. Over the same period, the cost of replacing reserves rose dramatically. Inflation, which affects all business, contributed to the increase in exploration and development costs. Also, potential reserve additions were located in deeper zones or in otherwise more operationally difficult, and hence more costly, areas like deep offshore waters, the Alaskan Arctic, etc. Finding costs escalated as wells were drilled deeper; the cost per foot drilled increased, and reserves discovered per well drilled became smaller. While the rate of increase in these costs has slowed, and indeed some of the costs have actually declined since the 1981 peak, the use of historical cost as a base for computing depletion simply fails to take into account the true cost of replacing existing reserves, especially when costs have increased as they have in the last decade.

Rising prices through 1980 encouraged the oil and gas driller in finding oil and gas. Undoubtedly, however, some wells were not drilled and some production was forfeited by the removal of percentage depletion for integrated oil companies. In today's market, moreover, the demand for oil and gas products has declined, resulting in a corresponding decrease in price. Percentage depletion ameliorates the effect of this decline to some extent for independent producers. API believes that percentage depletion remains an effective replacement cost recovery mechanism which encourages oil and gas exploration and production by recognizing the high risks and the enormous capital outlays required to replace reserves today in the industry.

Investment Tax Credit

The petroleum industry is deeply concerned by the proposal to repeal the investment tax credit (ITC), a key element of the existing capital cost recovery system in mitigating the inherent bias of the income tax against savings and investment. The ITC serves three important functions: (1) it augments the present value of capital cost recovery allowances; (2) it serves as a surrogate for indexing capital cost recovery allowances for inflation: and, (3) it is a source of funds for financing new capital investment.

In combination with ACRS, the ITC has been an important contributor to the investment boom in plant and equipment which has led the recent economic recovery. In testimony before the Committee on Ways and Means on June 11, 1985, Professor Michael Boskin of Stanford University, stated that the ITC in combination with ACRS has provided the stimulus for about 25% of the increase in net investment in the United States between 1982 and 1984. Elimination of the ITC could well lead to an economic downturn as business finds the aggregate present value of its capital cost recovery allowances diminished. Professor Martin Feldstein of Harvard University has recently said that:

> Experience shows that the ITC provides a substantial boost to investment in business equipment. Eliminating the ITC would not only reduce the long-term level of investment spending but would have a particularly adverse effect on investment in 1986...
>
> If it looks as if the ITC is going to be eliminated next January, companies will bring forward to this year as much of their planned 1986 investment as possible in order to take advantage of the ITC while it is still available.
>
> Martin Feldstein, The Wall Street Journal, June 13, 1985, p. 30.

Some of Professor Feldstein's concern about 1985-86 could be mitigated. Equity requires that projects under which taxpayers are committed to expenditures or an engineering analysis has been made before the effective date of the provision should be grandfathered. Such rules will prevent uncertainty in financial planning during the pendency of the tax reform debate.

As indicated in Figures 6 above and 8 below, the ITC augments the present value of cost recovery under 5-year ACRS and provides equivalency to current expensing of IDC's at a 10% discount rate. The 5-year ACRS class includes most tangible assets used in the petroleum industry in exploration, production, and refining operations. Without the ITC, the present value of cost recovery allowances under ACRS falls substantially short of current expense equivalency. The shortfall is somewhat less under the proposed CCRS. Assuming an average inflation rate of 5% and a tax rate of 33%, an ITC rate of about 3% for CCRS Class 3 and about 4% for Class 4 would be required to attain the current expense equivalency present under existing law at the risk free 10% discount rate. At a more realistic discount rate of 15%, an even higher rate of ITC would be required to match the current expensing standard.

The ITC has also functioned as a surrogate for indexing cost recovery allowances under present law at moderate inflation rates. If there is concern with the imprecision of this feature of the ITC, the present ACRS system could be indexed to eliminate the erosion of capital values through inflation. However, as indicated above, an ITC at a lesser rate would still be required to attain current expense equivalency.

The ITC also serves as an important source of funds for financing new capital investment which may not be easily replaced by other sources. The result of repeal would likely be a curtailment of investment in the petroleum and other capital intensive industries.

Capital Cost Recovery System (CCRS)

The President proposes that the Accelerated Cost Recovery System (ACRS) now used for most domestic investment in plant and equipment be replaced by a new Capital Cost Recovery System (CCRS), which would be indexed to eliminate the erosion of capital costs through inflation. While the adoption of indexing is a significant improvement in the system, that change could also have been made for ACRS.

A capital cost recovery system should be designed to minimize the adverse impact of the tax system on investment and economic growth. There are two crucial aspects to this goal:

(1) The cost recovery system should be sufficient to recover the real cost of the asset (allowing for inflation); and,

(2) The cost recovery sytem should strive for neutrality as to investment decisions by minimizing the impact of the tax on the anticipated discounted cash flow rate of return on new projects -- commonly called the "internal rate of return" (IRR).

The key in determining whether a cost recovery system achieves these two goals is the timing and amount of the deduction for cost recovery. Any system short of current expensing would require both the indexing of future deductions to provide recovery of real costs uneroded by inflation and a device such as an investment tax credit (ITC) to offset the loss in present value of delayed cost recovery deductions.

Current expensing of equity investment in the year incurred is the most efficient mechanism to provide complete neutrality as to the decision to invest or consume (so-called intertemporal neutrality) and the choice among various investments (so-called intersectoral neutrality). A cash flow tax employing expensing of equity investment achieves neutrality between investment and consumption because it provides an immediate depreciation deduction. Such an approach does not reduce the IRR from its before tax level and thus, requires neither indexing to protect against inflation nor an ITC to offset the anti-investment bias of a "pure" income tax based on "economic depreciation."

So-called "economic depreciation" is, in theory, designed to reduce the IRR by the statutory tax rate. For example, a project having an IRR of 18% before tax would have a 12% IRR after tax at a 33% tax rate under a theoretically correct "economic depreciation" system. Clearly, the decreased IRR from such a system would create a substantial bias against investment and in favor of consumption and, hence, curtail economic growth. The ACRS -- which spreads cost recovery for most plant and equipment over five years -- falls in between, reducing the IRR even when supplemented by an ITC or similar device. As noted previously, the ITC also functions as a surrogate for indexing for moderate inflation rates.

The new CCRS would be divided into six classes with Class 1 containing 3-year ACRS property, Classes 2-4 containing most 5-year ACRS property, Class 5 containing the remaining 5-year ACRS plus 10-year ACRS property, and Class 6 containing 15 and 18 year ACRS real property. Unfortunately, the proposal does not use a classification system familiar to tax professionals, but relies on the statistical categories used by the Department of Commerce and some other Federal agencies. For foreign investment, the President proposes something "along the lines of" the Real Cost Recovery System (RCRS) discussed in Treasury I.

The asset categories used in CCRS and RCRS grew out of pilot studies of the rate of economic depreciation of a set of rather vaguely defined asset types. Subsequent academic studies examining the incentive effects of capital recovery systems often used asset classifications based on different Federal statistical sources and, hence, effectively classified assets differently. Various Federal agencies define assets based on their own methodologies and needs and often cannot assign precise definitions to the categories they use. For tax purposes, however, precision is required -- not merely broad, general statements about classes of assets. Neither the description in the President's plan, nor the available studies of its capital cost recovery systems, nor the statistical sources used in the studies provide any clear definitions of how the plan would treat cost recovery for specific types of assets. As a result, business cannot predict how specific assets would be treated under either CCRS for domestic investment or something "along the lines of" RCRS for foreign investment.

The President's proposal on depreciation recognizes this deficiency. Accordingly, it calls for creation of a new staff at the Treasury to study and, ultimately, to decide in which CCRS category all assets are to be classified. Implementation of this effort would require a prolonged legal and regulatory effort which would create uncertainty that would discourage investment. The economic impact of this uncertainty is not considered by the Treasury in its discussion of the new system.

The current tax code has already recognized and wrestled with the complexity associated with classifying assets in a real business setting, as it must to perform its function effectively. The pre-1981 ADR system (still used for foreign investment and state income tax purposes) is based on many years of use and on legal and regulatory clarifications of subtle distinctions among assets. The ACRS (used for domestic investment) uses ADR classifications as the basis for assigning assets to the five ACRS categories. The vague CCRS and RCRS categories are a clear break with these known and tested systems. Any new depreciation system should reflect either the guideline classes used under ADR (as in the Bradley-Gephart proposal) or under ACRS (as in Kemp-Kasten).

Although the new system lacks definitional clarity, it appears to place most petroleum industry investment other than IDC in CCRS Classes 3 and 4. Oil field producing equipment such as tubing, casing, wellhead valve assemblies ("Christmas trees"), flow lines, separators, treaters, storage facilities, platforms, extraction facilities, and related assets now covered by Guideline Class 13.2, Exploration and Production of Oil and Natural Gas, would appear to fall in Class 3. Most refining facilities now covered by Guideline Class 13.3 would presumably fall in Class 4. Set out below is a comparison of the average annual recovery rates under present law (ACRS) with rates under CCRS Classes 3 and 4:

Percentage of Real Cost Recovered in Each Year -- Assuming 5% Inflation*

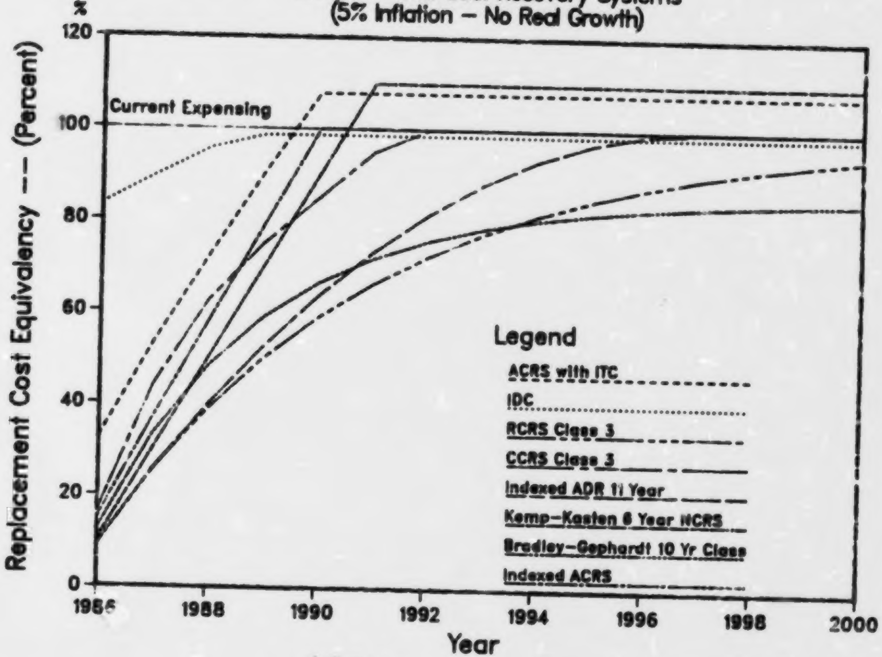
Recovery Year	Under 5-year ACRS	Under CCRS Class 3	Under CCRS Class 4
1	15.0%	16.5%	11.0%
2	21.0	27.6	19.6
3	19.1	18.5	15.3
4	18.1	12.4	12.0
5	17.3	10.0	12.0
6		10.0	12.0
7		5.0	12.0
8			6.1
	90.5%	100.0%	100.0%

* Note: -- Also assumes mid-year startup. Nominal ACRS percentages are 15, 22, 21, 21, and 21 for years 1-5, respectively.

In order to evaluate various cost recovery sytems, comparisons of their impact on cash flow generation and present value are attached. Figure 7 measures cash flow impact by comparing the ratio of aggregate annual allowances for new petroleum exploration and production investments made after 1985 under various systems to current replacement cost, assuming 5% inflation, replacement of existing assets, and no real growth.

In measuring the ability of a system to permit cash flow generation equal to replacement cost in Figure 7, we find that all systems which are indexed and provide full cost recovery within a period no longer than the average useful life of the asset group ultimately meet the replacement cost equivalence (RCE) test. That is, they provide enough total depreciation to cover annual outlays to replace facilities as they wear out. Current expensing qualifies from the beginning. Without ITC, the present unindexed 5-year ACRS falls short of RCE. The present recovery system for integrated oil companies for IDCs over 36 months lacks indexing and, as a result, falls slightly short of RCE. CCRS with full recovery and indexing achieves replacement cost equivalence by the end of the first capital recovery period (e.g. 7 years for Class 3). A closed system based on economic lives such as the pre-1981 ADR depreciation, if indexed, would achieve equivalence (even without the ITC) after one full recovery period. Similarly, indexed ACRS would achieve replacement cost equivalence. None of the open-end, constant

Figure 7
Exploration and Production
Comparison of Aggregate Allowances
Under Various Cost Recovery Systems
(5% Inflation – No Real Growth)



rate depreciation systems, such as RCRS or Bradley-Gephart could achieve RCE.

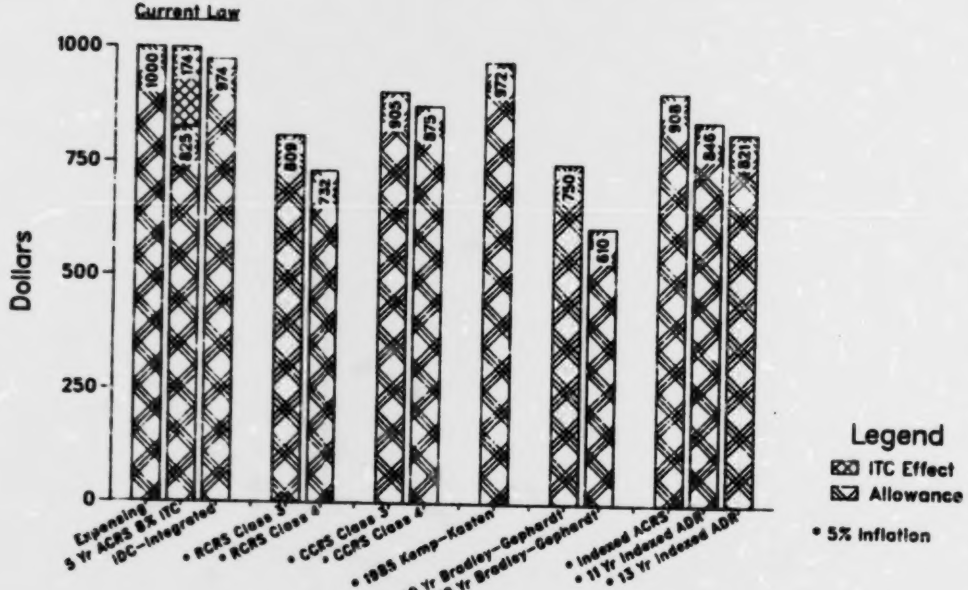
Figure 6 compares the effects of various systems on the present value of cost recovery allowances (assuming 5% inflation), thus indicating potential impact on the IRR and investment. Current expensing provides 100% present value recovery (regardless of the discount rate). Present law 5-year ACRS with an 8% ITC and no basis adjustment matches the present value of current expensing at a 10% discount rate, but would fall short without the credit -- or with a higher, more realistic discount factor. Similarly, the President's proposed CCRS falls short of current expense parity. The open-end systems -- such as RCRS and Bradley-Gephardt -- miss the mark by a wide margin. Indexed ADR would also fall short without the ITC, as would indexed 5-year ACRS.

Deny Rate-Reduction Benefit on Excess Depreciation

The Proposals contain a "rate-reduction" recapture measure which discourages growth, adds to the complexity of the law, and is clearly unfair. The Proposals would tax the "unexpected windfall that would otherwise accrue to taxpayers who deferred tax liability by taking accelerated depreciation deductions at relatively high pre-reform tax rates, but would repay this deferred tax liability at lower post-reform tax rates."

Figure 8

Present Value of Various Cost Recovery Allowances
for $1000 of Investment
Discounted at 10%



The proposal would retroactively tax the difference between total accelerated depreciation already taken during 1980-86 and what would have been taken under 12-year, straight-line depreciation (for five-year ACRS) -- an arbitarary reference basis that is not a measure of economic depreciation and is not even indexed. The purpose of this unprecedented ex post facto recapture of a past depreciation deduction -- legitimately taken -- would be to tax the perceived "windfall" which would result from reducing the tax rate on income from existing projects to 33%. With this objective, the reference basis for the calculation should be CCRS depreciation, the new indexed depreciation system, which is proposed to accompany the 33% rate.

Adoption of the recapture proposal in its present form would reduce the cash flow from existing projects now available for reinvestment. And the unfortunate retroactivity precedent would surely cause business to become highly skeptical of the permanence of any future tax incentives. Decreased cash flow and increased uncertainty would depress investment.

Corporate Minimum Tax (CMT)

Current law provides for an "add-on" type minimum tax equal to 15% of the excess of the taxpayer's preference items over the greater of $10,000 or 100% of the corporation's regular corporate federal income tax and reduced by most credits. The Proposals would repeal the add-on tax. In its place, a 20% alternative corporate minimum tax (CMT) is applied against the sum of taxable income and the excess of preference items over $10,000. Also, a $15,000 exemption is allowed against taxable income. Adjustments would be permitted for preference-related net operating loss carryover amounts and the foreign tax credit.

Since such a tax can defeat the purpose of legitimate tax provisions, it should not be enacted merely for revenue enhancement. However, if Congress feels that it must expand the corporate minimum tax, the President's proposal correctly chooses an alternative over an add-on minimum tax. The former concept addresses the perceived problem that some corporations pay too little tax, since it only applies when the regular tax is low. An add-on minimum tax reduces the value of the questioned tax "preference" for all taxpayers regardless of their regular tax position.

The minimum tax proposal also correctly recognizes that the only "preference" involved in expensing IDCs is a matter of timing of tax payments, since the total amount deducted over the life of a project is the same regardless of the time when the deduction is taken. The procedure used is to define the "preference" as the present value of the difference between IDC and CCRS depreciation. The same type of calculation should be made in estimating the "preference" (if any) arising from accelerated depreciation of capital equipment. The Windfall Profit Tax should be a credit against the minimum tax.

Foreign-Source Income

The proposed changes in international taxation will make U.S. companies less competitive in international markets, damage the U.S. economy, and reduce U.S. employment.

Under the Proposals, the taxation of foreign source income of U.S. taxpayers would be changed by replacing the overall foreign tax credit limitation with the per country limitation. This change would be accompanied by new, complex allocation/recapture rules for foreign losses.

API believes that:

- U.S. oil companies operating abroad should not be put at a competitive disadvantage vis a vis foreign competitors.
- The proposed loss allocation rule would result in unequal tax treatment between domestic losses and foreign losses and, thus, would discriminate against foreign investment.
- The averaging of foreign taxes accomplished through the overall limitation is an appropriate recognition of the realities of international business conduct.
- The per country limitation is unnecessarily complex. The President's proposal acknowledges this complexity. The overall limitation method greatly alleviates administrative and enforcement problems occasioned by the per country method.
- The overall foreign tax credit limitation should be retained so that U.S. companies can remain competitive in the ever increasingly difficult search for energy resources in the world and in the supply of petroleum products in world markets.

In the case of a consolidated group of corporations, existing rules require that the allocation of interest expense between domestic and foreign sources be made separately for each member of the group. The Proposals change the manner of allocating interest expense from a separate company to a consolidated group basis.

This proposal is anti-competitive vis a vis groups of related companies having international operations compared to corporations or groups with no international activities. It would place U.S. groups of corporations with operations abroad at a competitive disadvantage compared with foreign groups both in their U.S. and foreign operations. The proposal would substantially change a long-standing concept utilized in the treatment of interest and other expenses. Vast amounts of capital have been deployed through business decisions based in part upon current law.

In summary, in the interest of preserving the competitiveness of American companies operating abroad, the foreign source income proposals should be rejected.

205/14

STATEMENT BY JON REX JONES, PRESIDENT, INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA, WASHINGTON, DC

Mr. JONES. Thank you, Mr. Chairman.

I am an independent oil and gas producer from Houston, TX, but I am here today as president of the Independent Petroleum Association of America.

There has been great hope expressed about diversifying our domestic energy sources; but, as you know, this just has not happened. Nuclear power has been stalemated, the synfuels industry has collapsed, and transportation and environment concerns have limited the use of coal in the United States. It is inescapable, therefore, that oil and gas, which provide about 70 percent of our energy requirements, will continue to supply most of our energy for at least the balance of this century.

Mr. Chairman, today we have already heard several misperceptions pointed out about our industry, and in the past the domestic petroleum industry has been the object of many erroneous perceptions. We would like to highlight several erroneous perceptions here today of major energy concerns, and then present the facts.

The first perception is that we in the United States are reaping the benefits of a worldwide oil glut that is going to go on forever. The reality is that we are still importing too much petroleum, at a cost which is the major cause of our chronic balance-of-payments deficit. Last year we imported about one-third of our oil requirements, at a cost of $60 billion, which accounted for half of our balance-of-payments deficit. The cumulative 10-year cost of oil imports has been about $535 billion. Short of a major commitment to reverse these trends, that are now self-evident, we risk future energy supply problems far more disruptive than any we have experienced before.

As illustrated on this first large chart here, the energy supply task before us is enormous. The blue area shows the decline in production that will automatically occur because of the natural decline of old wells as they are depleted. The red area shows the amount of crude oil needed to be found and developed to meet expected levels of demand while maintaining imports at about 30 percent of domestic demand. To reach this level and also make up for the natural decline from existing wells means we must develop 13 million barrels of new daily production over the next 10 years. This will require finding and developing new reserves equivalent to 180 percent of presently proved reserves. To achieve this minimum level of growth will require drilling an average of 100,000 new wells each year, compared to the projected total for 1985 of only 70,000 wells.

As shown on the next large chart here, this will require the expenditure of an average of $62 billion each year for 10 years, almost double the $32 billion average for the past decade and significantly greater than the $35 billion that is projected for 1985.

Another perception is that, with the world oil crisis low and a surplus of supply worldwide, we should discourage development of domestic reserves and increase consumption of imported oil. In other words, some say that tax policies which encourage development of domestic petroleum resources amount to a drain-America-first policy which we should reject. The reality is that a policy of saving domestic oil and gas implies three erroneous assumptions. The first assumption is that we are rapidly running out of petroleum resources. This is contrary to all credible evidence. The United States has enough oil and gas to supply us well into the next century and certainly to the time when alternative energy sources will replace the conventional oil and gas reserves.

Second is the assumption that we can quickly utilize our undeveloped oil and gas reserves when there is a crisis. If the experience of the 1970's demonstrated anything, Mr. Chairman, it is the folly of waiting until there is a crisis to begin development of domestic petroleum reserves. The fact is, development of petroleum fuels requires a long leadtime, as long as 5 to 7 years.

A third erroneous assumption is that there is no undue costs or risk associated with increasing the U.S. reliance on imported oil. The cost to the national economy and vulnerability to imported oil far exceeds the price of this oil itself. The U.S. balance-of-trade deficit is one of the most crucial factors in continuing high interest rates in America, which we all agree have had a debilitating effect on our economy. Oil imports constitute the single largest element of our trade imbalance, and it is almost three times as large as the second largest category which is $22 billion for automobiles and trucks.

If we shift from encouraging domestic production to encouraging reliance on imported oil, as some profess, we could very quickly be in the position where 50 percent or more of our total energy is from imports—increasing our trade deficit to $200 billion annually, which would have a devastating effect on our economy.

The **CHAIRMAN**. That's a great place to end. [Laughter.]

Mr. **JONES**. Thank you, Mr. Chairman.

[Mr. Jones' written testimony follows:]

INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

SYNOPSIS OF TESTIMONY BY JON REX JONES
On Behalf of The Independent Petroleum Association of America

- The U.S. does not have an oil glut: we are subject to a severe shortage of domestic oil production, leaving us vulnerable to economic blackmail and a national security disaster in the event of a severe supply disruption.

- Just to restrain imports to the present level of about 30% of oil consumption will require almost doubling the exploration and drilling activity averaged for the past ten years. This will require an expenditure of $62 billion each year for ten years compared to projected 1985 expenditures of $35 billion.

- To discourage development of domestic resources and encourage increased reliance on imports would be repeating the energy policy mistakes of the 1950s and 1960s which led to the severe energy supply shortages of the 1970s.

- The U.S. is not about to run out of crude oil and natural gas. We have sufficient reserves to adequately supply our needs well into the next century and far beyond the time when alternative energy sources will be developed to replace conventional oil and natural gas.

- Development of conventional oil and gas resources cannot be put off for a "rainy day." Oil and gas exploration and development requires long lead times and the existence of a healthy, expanding petroleum exploration/production industry.

- It is not possible to "conserve" or store enough oil to protect either the present or future generations against supply disruptions, emergencies or shortages.

- The petroleum industry is the most heavily taxed major industry in the U.S.

- Present tax provisions do not permit oil and gas producers to make exorbitant profits. In fact, return on investment for the petroleum industry over the past twenty years has been generally equal to that for all major industries. At the present time, the petroleum industry's rate of return is significantly below that of most major industries and prospects are for continued declines.

Conclusion

- Proposals to change current oil and gas tax provisions will irreversibly damage the domestic petroleum industry and could cause collapse of what is left of an already crippled exploration and development effort. This would cause substantial declines in domestic oil production within six months with accelerating declines thereafter. Our chronic balance of payments deficit would worsen and OPEC's influence over energy markets and prices would be significantly strengthened.

SYNOPSIS OF TESTIMONY OF S. J. JANSMA, JR.
On Behalf of Rocky Mountain Oil and Gas Association

- The present differential tax treatment of oil and gas exploration and production activity is not preferential tax treatment. It is simply a reflection of the differing economics of the activities being taxed.

- The petroleum industry has been subjected to tax reform. No other industry has been subjected to so many specific negative tax changes of a major nature during the past fifteen years.

- Present petroleum industry tax provisions accomplish exactly what they were intended to do, that is, permit investment of the extraordinary amounts of capital required to finance domestic exploration/production activity to develop domestic oil and gas resources.

- To radically alter in a negative way the tax treatment of the only industry positioned to provide fuel for the economy and national security over the next fifteen to twenty years would be classic case of government working at cross purposes.

- Changes in exploration and development activity are just as sensitive to changes in tax treatment as they are to price changes. Particularly in times such as the present with declining oil and gas prices, the impact of negative changes in tax treatment would be magnified.

- Percentage depletion reflects the underlying economics of the oil and gas industry. Percentage depletion is necessary because:

    1) Oil and gas producers must discover their capital assets;

    2) Oil and gas properties have no residual value;

    3) Percentage depletion approximates installment sale treatment of capital assets;

    4) Replacement costs get more expensive over time; and,

    5) Successful wells must provide return of sufficient capital to cover the cost of unsuccessful wells.

- Provision for current expensing of intangibles is required to put oil and gas producers on a neutral tax basis with other industries which currently deduct similar expenditures, i.e., current expenditures for items which, once acquired, have zero capital value.

- Intangible drilling costs are analogous to research and development expenditures in that they must be expended before it is known whether a capital asset will result from the expenditure.

- Requiring capitalization of intangible drilling cost would distort tax neutrality because completion and operating decisions for wells would then be influenced by the tax treatment of such expenditures.

Conclusion

1. The reasons for granting differential tax treatment for oil and gas exploration and production are as compelling today as when those provisions were first enacted at the inception of the income tax.

2. Energy tax policy must not be influenced by short-term market fluctuations but instead must focus on the long-term requirement of achieving energy independence.

3. Tax provisions are the most efficient and effective tool for accomplishing our energy goals. Current tax provisions are a vital force in encouraging investment of the unprecedented amounts of capital required over the next decade to achieve our energy needs.

I am Jon Rex Jones, an independent oil and gas producer from Houston, Texas. I am appearing here as President of the Independent Petroleum Association of America. With me to present a portion of our comments is S. J. Jansma, Jr., an independent oil and gas producer from Grand Rapids, Michigan. We also represent the thirty-seven unaffiliated state and regional associations listed on the cover page which join us in these comments. Together, these associations represent essentially all of 15,000 independent oil and gas producers (and thousands of royalty owners) who account for 90 percent of all the wildcat drilling in the United States and 85 percent of all drilling, which results in finding a majority of the significant oil and gas discoveries. Our members generally have only one profit center -- the sale of oil and gas at the wellhead. They also have only one principle activity for reinvestment of their income -- exploration and development of new petroleum reserves. They do not refine, market or transport oil and natural gas.

We agree that the tax system should be fair to all taxpayers and certainly everyone wants to simplify wherever possible. However, it must be remembered that the domestic petroleum industry can be crippled and our energy security irreversibly harmed by inappropriate decisions intended to promote tax simplicity. The provisions recommended by the Treasury, as they would apply to the petroleum industry, would neither be equitable nor promote simplification in many respects.

Independent producers welcome the debate about tax reform for all taxpayers because it provides an opportunity to remind you of what many seem to have forgotten: that "tax reform" for oil and gas producers has already been accomplished. No industry has been subjected to a series of significant negative tax changes over the past 15 years that begins to approximate the damage inflicted on our industry. Consider the following:

- October 1969 - Applicable rate of percentage depletion cut from 27.5% to 22%;
- October 1969 - Percentage depletion made subject to a "minimum tax" provision;
- March 1975 - Percentage depletion, for petroleum only, repealed for integrated companies. Percentage depletion left intact for producers of more than 100 other minerals;
- March 1975 - Independent producers and royalty owners -- of oil and gas only -- limited as to volume of production eligible for percentage depletion. Volume limit to be cut in half over five year phase-down;
- October 1976 - Intangible drilling costs retroactively made subject to "minimum tax" provisions for individuals;
- October 1976 - Percentage depletion for independent producers and royalty owners further restricted by application of so-called 65% of taxable income limitation;
- October 1976 - Exploration and drilling for oil and gas subjected to "at risk" limitations;
- March 1980 - Crude Oil Windfall Profit Tax Act adopted, imposing an excise tax on domestically produced crude oil -- but not imported oil;
- January 1981 - Applicable rate of percentage depletion begins phase-down from 22% to 15% in 1984. Rate reduction applies only to oil and gas;
- September 1982 - "Minimum tax" on intangible drilling costs and percentage depletion increased for individuals.
- September 1982 - Integrated producers denied current expensing for 15% of intangible drilling costs;
- July 1984 - Denial of current expensing for intangible drilling costs increased to 20% for integrated producers;
- July 1984 - Use of prepaid intangible drilling costs restricted for all taxpayers.

This multiplicity of actions have created continuing uncertainty, while increasing the industry's federal tax burden by hundreds of millions of dollars annually, decreasing the amount of exploration and drilling that would otherwise occur.

While there has been great hope expressed about diversifying our domestic energy sources, this has not happened. Nuclear power has been stalemated. The synfuels industry has collapsed, and transportation and environmental concerns have limited the use of coal. It is inescapable that oil and gas, which presently fills 66% of our energy requirements, will continue to supply most of our energy for at least the balance of this century.

We think it is obvious that government tax policy can be directed to either encourage or discourage energy production. We hope as you continue your deliberations you will consider that oil and gas production is similar, in one crucial aspect, to nuclear, synfuels, and other forms of energy in that there is a long lead time from initial exploratory efforts to full commercial development. The inevitable decline of production from existing wells cannot be offset by just turning a spigot. It takes an average of five years after initial discovery to fully develop production of a new onshore petroleum reservoir to reach maximum production. Offshore development can take eight to ten years.

PERCEPTION vs. REALITY

It is often said that in political matters, perception becomes reality. In the past, the domestic petroleum industry has been the object of many perceptions -- and often the perceptions have been false. We would like to highlight several erroneous perceptions of major energy issues and then present the facts.

Our comments will cover three broad themes:

- CURRENT OIL AND GAS TAX PROVISIONS SERVE A COMPELLING NATIONAL PURPOSE - ENSURING OUR ENERGY SECURITY
- THESE TAX PROVISIONS ARE AN EFFICIENT AND EFFECTIVE TOOL IN ACCOMPLISHING OUR ENERGY GOALS
- SPECIFIC PROVISIONS SUCH AS PERCENTAGE DEPLETION AND EXPENSING OF INTANGIBLE DRILLING EXPENSES HAVE A VALID ECONOMIC PURPOSE AND RATIONALE.

WORLDWIDE OIL GLUT

The first perception is that we in the United States are reaping the benefits of a worldwide oil glut that will last indefinitely. The reality is that we are still importing too much petroleum at a cost which is a major cause of a chronic balance of payments deficit. Last year, we imported about one-third of our oil requirements at a cost of $56 billion which accounted for half of our balance of payments deficit. The cumulative 10 year cost of oil imports has been about $535 billion.

The reality is that many in the petroleum industry have repeatedly spoken to the obvious dangers inherent in a declining domestic energy producing capability accompanied by growing dependence on remote and insecure energy supplies. Without debating the reasons why such warnings went unheeded, I want to say that short of a major commitment to reverse the trends that are now self-evident, we risk future energy supply problems far more disruptive than any experienced before.

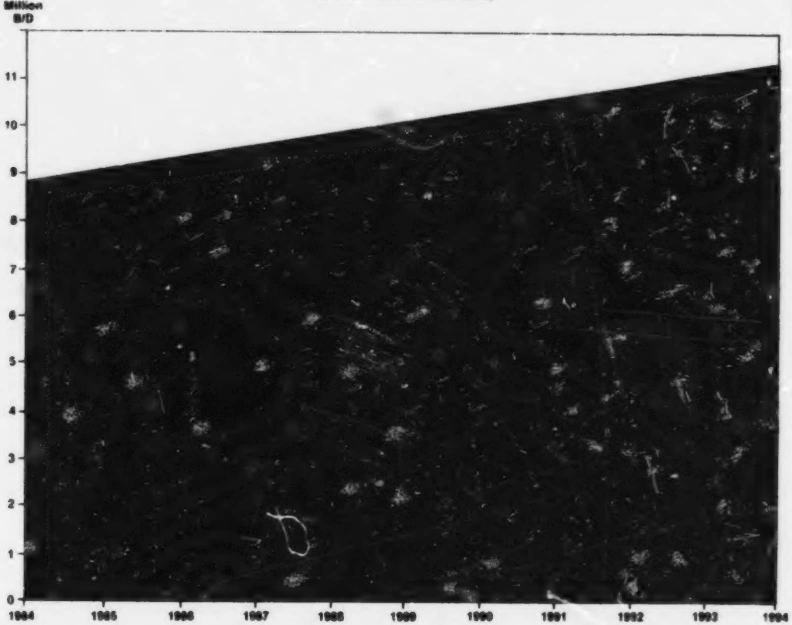
SUPPLYING ADEQUATE PETROLEUM

Let's examine these trends in more detail:

Chart 1 illustrates that the energy supply task before us is enormous. The blue area shows the decline in production that will automatically occur because of the natural decline of old wells as they are depleted. The red area shows the amount of crude oil needed to be found and developed to meet expected levels of demand, assuming only a 2 percent annual increase in demand while maintaining imports at about 30 percent of domestic demand. Production will have to increase to about 11.4 million barrels per day in 1994. To reach this level and also make up for the natural decline from existing wells means we must develop 13 million barrels of new daily production in this period. This will require finding and developing new reserves equivalent to 180% of presently proved reserves.

NEW CRUDE OIL PRODUCTION NEEDED

(2% Increase in Demand)



IPAA Chart
June 1985

208

CHART 1

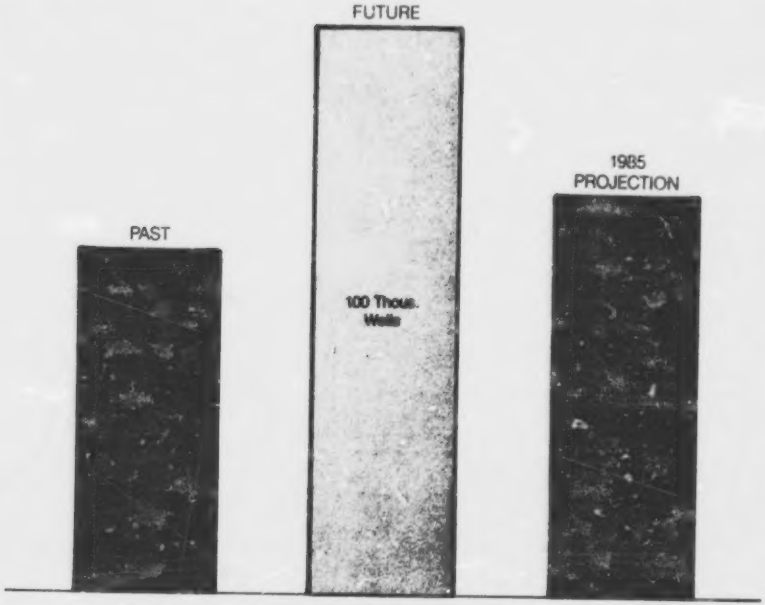
Now let's look at the drilling requirement to achieve this minimum level of growth. Chart 2 illustrates that to meet just 70 percent of domestic demand for petroleum liquids from domestic resources in the coming decade will require drilling an average of 100,000 new wells each year. Compare this to the average of the past ten years -- 60,000 wells -- and the projected total for 1985 of 70,000 wells, and the magnitude of the job is clear.

Chart 3 shows the capital required to do the necessary drilling. 100,000 wells per year will require the expenditure of an average of $62 billion each year for ten years, almost double the $32 billion average for the past decade and significantly greater than the $35 billion projected for 1985.

Chart 4 shows the rapid decline in crude oil prices since 1981. In 1984 alone, price declines have deprived producers of more than $22 billion which would otherwise have been available for investment in exploration and drilling. With prices declining, the impact of any negative change in tax provisions will be magnified.

DRILLING REQUIREMENTS

10 Year Average



Source API, IPAA

IPAA Chart
June 1985

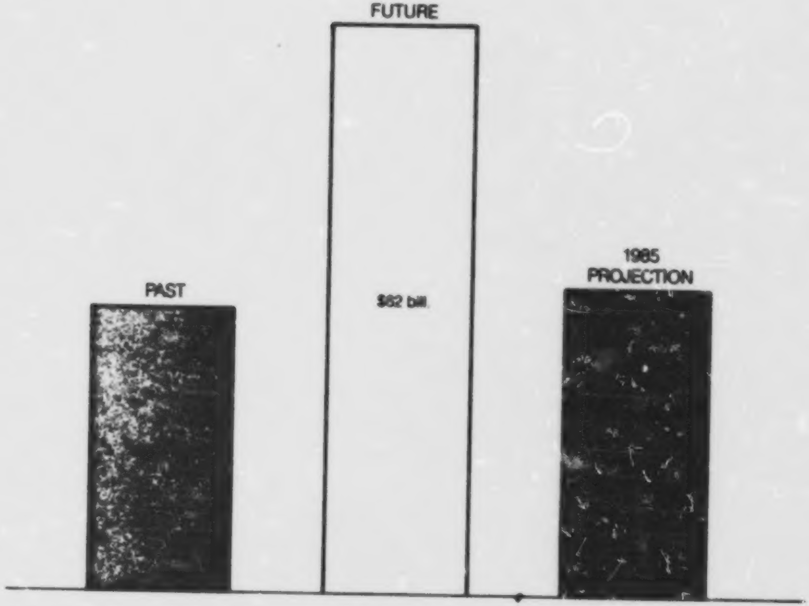
CHART 8

218

CHART 3

EXPENDITURE REQUIREMENTS

10 Year Average

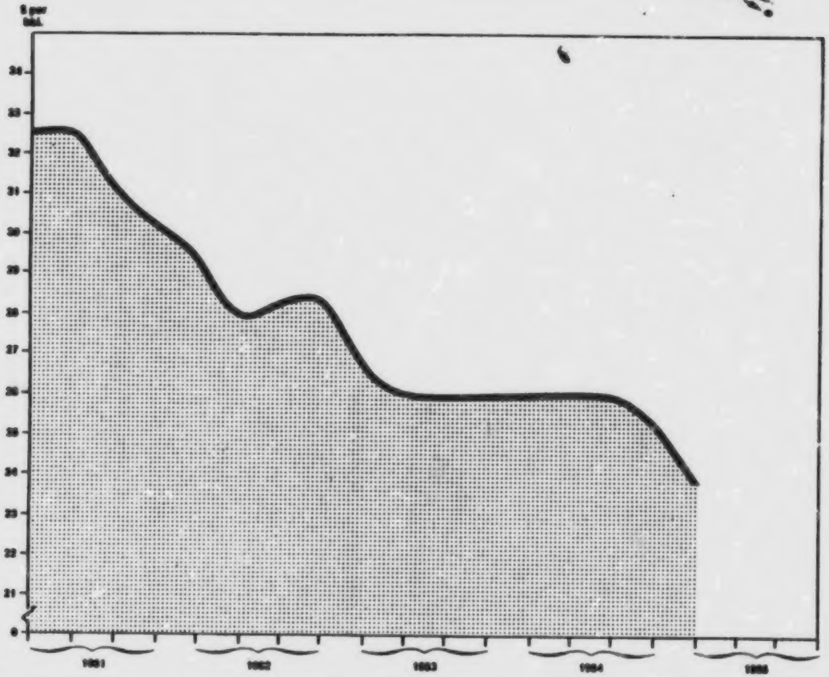


Source: Chase Manhattan Bank, IPAA

211

IPAA Chart
June 1985

U.S. CRUDE OIL PRICES



Source: DOE/EIA

2/2

IPAA Chart
June 1985

CHART 4

WHY DRAIN AMERICA FIRST?

The perception is that with world oil prices low and a surplus of supply worldwide, we should discourage development of domestic reserves and increase consumption of imported oil. In other words, tax policies which encourage development of domestic petroleum resources amount to a "drain America first" policy which should be rejected.

The reality is that a policy of "saving" domestic oil and gas implies three assumptions. First, that domestic oil and gas reserves are scarce and must be horded for emergency. Second, that we can quickly utilize these resources when they are needed. Finally, that the United States can increase dependence on imported energy without undue cost or risk.

Abundant Reserves

The perception that we are rapidly running out of petroleum resources is contrary to all creditable evidence. The reality is that the U.S. has enough oil and gas to supply us well into the next century and far beyond the time when alternative energy sources will replace conventional oil and natural gas. Most creditable estimates are that the U.S. has reserves remaining which exceed the total cumulative oil and gas production in the 126-year history of the domestic petroleum industry. Even larger estimated reserves exist in oil shale, tar sands and non-conventional natural gas sources such as geopressurized brines.

The perception is that because the Department of Energy estimates that we have proved reserves sufficient to last only nine and a half years, that we are about to run out of oil. The reality is that "proved reserves" is a technical term of art with a very specific, narrow meaning. In layman's terms, "proved reserves" equal the quantity of oil and gas which can be produced with today's equipment and technology from wells already drilled, given the price of crude oil and natural gas at the time the estimate is made. In other words, as the price goes up, estimates of proved reserves go up. As the price comes down, estimates of proved reserves come down. As technology improves, the amount of oil that can be produced from existing wells improves. As improved prices or economic conditions or adequate tax provisions make possible the drilling of more wells, the greater the amount of oil that can be produced from already discovered reservoirs, and the more new reserves that will be found. In fact, 80% to 90% of the additions to "proved reserves" each year result from revisions of earlier estimates of the proved reserves in known fields rather than from new discoveries in virgin areas.

At no time during the past 30 years have proved reserves of crude oil exceeded a 13-year supply. But we didn't run out!

Saving For The Next Crisis

The perception that we can quickly utilize our undeveloped oil and gas reserves when there is a crisis should have been dispelled by events of the 1970s. The reality is that if the experience of the 1970s demonstrated anything, it is the folly of waiting until there is a crisis to begin development of domestic petroleum reserves. Exploration for and development of petroleum fuels is a time consuming, expensive proposition. Once the decision to proceed is made, it requires many months, often more than a year, to complete the first well and begin commercial production. Developing a field to peak production requires three to five years onshore and five to eight years offshore. Petroleum prices began to increase in 1969 and accelerated throughout the 1970s. Consequently, exploration and drilling activity increased throughout the 1970s but the decline in crude oil production was not halted until 1976 (Chart 8, following page 14) and it required a full decade -- until 1981 -- before drilling reached a level sufficient for reserves added to equal reserves consumed in that year. It is not coincidental that as domestic activity increased, imports as a percent of supply declined significantly, crude oil prices peaked and began a sharp decline and the ability of OPEC to instantly bring about rapid price increases was broken.

Hidden Cost of Imports

Another perception is that there are no undue costs or risks in increasing reliance on imported oil. The reality is the cost to the national economy and security of imported oil far exceeds the bare price of a barrel of energy. The U.S. balance of trade deficit is one of the most critical factors in continuing high interest rates which all agree have had a debilitating effect on the economy. In 1984, expenditures of $64 billion on energy imports represented over half of the total U.S. merchandise trade deficit of $123 billion. Oil imports constitute the single largest element of our trade imbalance and is almost three times as large as the second largest category -- $22 billion of automobiles and trucks. If we shift from encouraging domestic production to encouraging reliance on imported oil, we could very quickly be in the position where 50% or more of our total energy is from imports. This could increase our trade deficit to near $200 billion annually which could have devastating effects on our economy.

Another significant but unmeasured cost of reliance on imported energy is the increase in the Defense budget required to provide the personnel and equipment needed to protect sources of supply and transportation facilities worldwide. And what about the threat of total loss of supply for military forces in the event of major military conflict?

Repeat Past Mistakes

The reality is that encouraging incredased reliance on imports would be a return to the short-sighted energy policies of the 1950s and 1960s which directly led to the repeated energy supply crises throughout the 1970s. Throughout the 1950s and 1960s, government policies, both directly through such

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means as wellhead natural gas price controls and indirectly through "jawboning" and manipulation of import controls, discouraged development of domestic petroleum resources and brought about increasing reliance on imported oil. These policies directly produced the following results:

(1) The number of active domestic oil and gas explorer/producers declined from 20,000 in 1956 to less than 9,000 in 1969.

(2) The average number of drilling rigs operating declined from 2,619 in 1956 to 975 in 1971.

(3) The number of oil and gas wells drilled in the United States declined from 58,200 in 1956 to 27,300 in 1971.

(4) The ratio of proven reserves to current year's production declined from 12.5 years in 1956 to 9 years in 1969.

(5) Imports, which in 1956 accounted for 15% of total supply, increased to 46% in 1977.

Until 1972, the excess productive capacity which had been developed in the U.S. gave us the ability to make up for any decrease in supply caused by import disruption. We no longer have that ability. Present maximum domestic production can supply less than 70% of our present needs. But this present lack of productive capacity is not due to a lack of reserves to develop.

Conclusion: "Discouraging" domestic oil production implies a deliberate effort to shrink the domestic industry, deploying trained personnel into other fields, putting resource recovery technology on hold, and abruptly and perhaps irreversibly reducing our hydrocarbon producing capability. In such an atmosphere, it would take years to remobilize a petroleum exploration/production capability, and additional years to regain lost production volumes. It is not practical to "mothball" an energy producing capability for posterity or future crises. It is not possible to "conserve" or store enough oil to protect either the present or future generations against supply disruptions, emergencies or shortages. The only practical means of confronting such contingencies is through healthy, expanding growth industries producing energy resources in step with present and prospective future national energy requirements. We do not now have this capability, and negative tax changes would only further cloud the nation's energy future.

Challenge For The Future

Since petroleum fuels will remain the mainstay of the U. S. energy mix for decades to come, it is obvious and inescapable that the challenge for the rest of this century will be to avoid unacceptable dependence on oil and gas from sources beyond our control. The world oil market is controlled by governments, not companies, and those governments are not always stable or congenial in relations with the United States. Even Canada and Mexico, our most secure foreign sources, have acted to reduce oil supplies to the U.S in past years. We must avoid such over-dependence for two reasons: (1) to prevent our Nation from ever being compromised as it seeks to pursue sustained leadership for the Free World, and (2) to avoid risks to our economy that could be far more devastating than those which resulted from the 1973-1974 and 1979 supply disruptions.

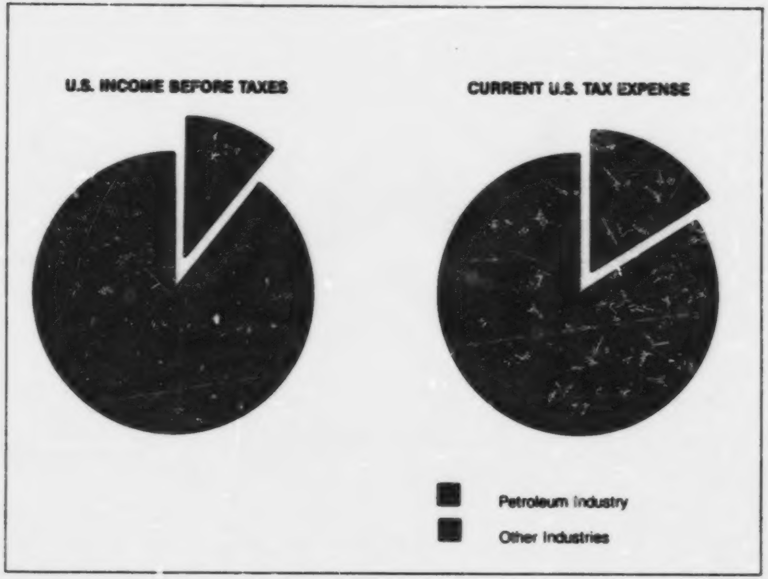
PETROLEUM TAX ISSUES

Fair Share of Taxes

The perception is that the oil industry doesn't pay its fair share of taxes. The fact is that no industry in America can match the petroleum industry's tax payments to government at every level. Chart 5 compares the petroleum industry's share of income and taxes with other major industries. In November, 1984, the staff of the Congressional Joint Committee on Taxation released a report of a study of the effective tax rates of some 200 companies in all major industrial sectors for 1981-1983. This report shows that the petroleum industry consistently had a disproportionate share of the tax load. For example, for 1983, while the petroleum industry accounted for only 21 percent of the total U.S. income for all of the companies studies, it paid 27 percent of the total taxes. This was based on actual tax expense and excluded deferred tax liability. When examining the tax load of any industry, it is important to compare "apples" with "apples." Too often, "apples" are compared to "oranges" which, as expected, leads to grossly distorted and misleading conclusions. A common mistake is intermingling data on U.S. income and taxes with worldwide data. Comparisons should be made of U.S. taxes actually paid on U.S. income, or worldwide taxes actually paid on world wide income. When deferred tax liabilities or world-wide income and taxes are considered, the disproportionate tax load of the petroleum industry is even higher. This study did not include the so-called "windfall profit tax" paid only by the petroleum industry or the massive production and severance taxes paid by oil and gas producers. In both cases, the results would show the petroleum industry with an even greater disproportionate share of the tax load.

PETROLEUM INDUSTRY SHARE

INCOME VS. TAXES



Source: Joint Committee on Taxation
1983 data

IPAA Chart
June 1985

CHART 8

219

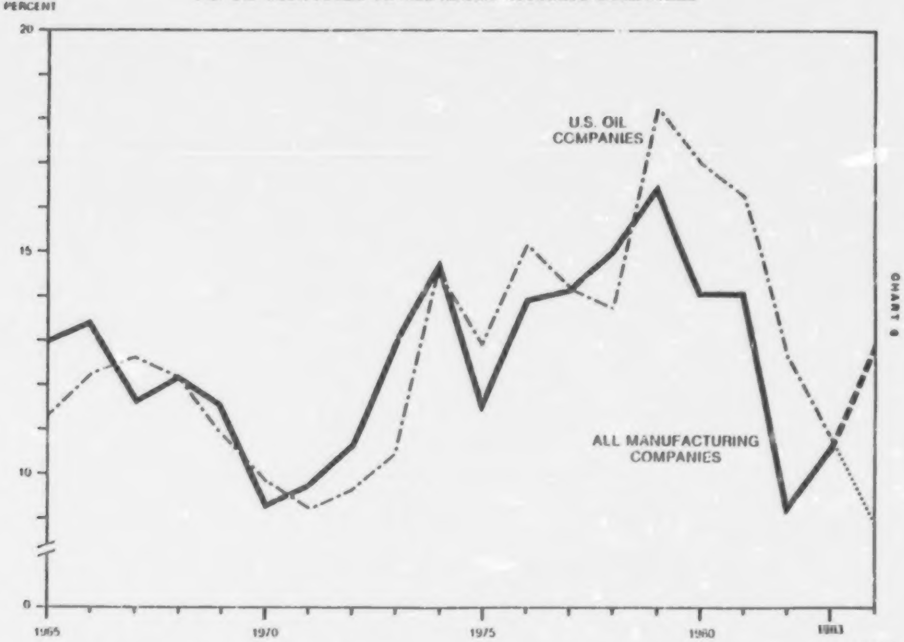
When comparing relative tax loads or profitability of various industries or individual companies, it is important to look at experience over time. A "snapshot" of data reflecting only one specific point in time is not always indicative of normal or average results. For any particular taxpayer or for an entire industry, there will be unusual events or circumstances which will distort results at a given point in time. In any industry, you will always find a few companies which, for any number of reasons, paid either much less or much greater taxes than the average. Taxes paid in one year are often influenced by activity or events occurring in other years which are not reflected in the current year's data.

Petroleum Profits

The perception is that oil and gas producers make exorbitant profits because of oil and gas tax provisions.

However, the reality is that profits of oil and gas producers reflect no inordinate benefits. Chart 6 compares the after tax rate of return on investment of domestic oil companies with the average rate of all manufacturing companies. Over the past 20 years, the rate for oil companies has averaged 12.7 percent while the rate for all manufacturers is 12.5 percent. Over the entire period, the rates for both track very closely. Chart 9 is based on actual data through 1983. The trend lines projected through 1984 are confirmed by data for the first quarter of 1985 showing the rate of return of the Petroleum Industry at 8.3 percent compared, for example, to Automotive, 19.4 percent; Banking, 17.6 percent and Publishing/ Broadcasting, 14 percent. Only Railroads and General Machinery are lower than Petroleum, at 6.9 percent and 7 percent, respectively. (see Table 1)

RATE OF RETURN
U.S. OIL COMPANIES Vs. ALL MANUFACTURING COMPANIES



SOURCE: BUREAU OF THE CENSUS

IPAA CHART
JUNE 1986

221

TABLE 1

RETURN ON INVESTED CAPITAL
FIRST QUARTER 1985

Automotive	19.4%
Banking	17.6%
Drugs	15.9%
Tobacco	15.5%
Aerospace	15.2%
Appliances	15.2%
Electrical, Electronics	14.7%
Office Equipment	14.3%
Food Processing	14.2%
Publishing, Broadcasting	14.0%
Beverages	13.2%
Trucking	11.7%
Manufacturing	11.2%
Building Materials	9.1%
Chemicals	9.0%
Airlines	8.3%
[redacted]	
Utilities	8.3%
General Machinery	7.0%
Railroads	6.9%

Source: Business Week
May 20, 1985

Tax Provisions Produce Petroleum Investment

The perception is that current petroleum industry tax provisions result in an "unfair benefit" to certain taxpayers.

The reality is that these tax provisions accomplish exactly what they were intended to do, i.e., permit investment of the extraordinary amounts of capital required to finance domestic exploration/production activity of the petroleum industry.

The reality is that oil and gas producers have demonstrated a remarkably consistent pattern of reinvesting their revenues back into the search for new oil and gas. Chart 7 illustrates U.S. Census Bureau data showing that total investment by independent producers in exploration, drilling, and development activity has exceeded their gross wellhead revenues for the last 10 years. For the decade the average rate of reinvestment by independents was 108%. That is, for each dollar of gross wellhead revenue, producers have invested an average of $1.08!

At first, this may seem an outrageous claim: "How can any industry or company continue to spend more than it makes year after year?" This is a true reflection of the economics of the petroleum industry.

First, this is not a profit and loss statement, but a report of gross revenue from wellhead sales of crude oil and natural gas compared to total funds expended for exploration, drilling and production. It includes capital expenditures together with operating expenses.

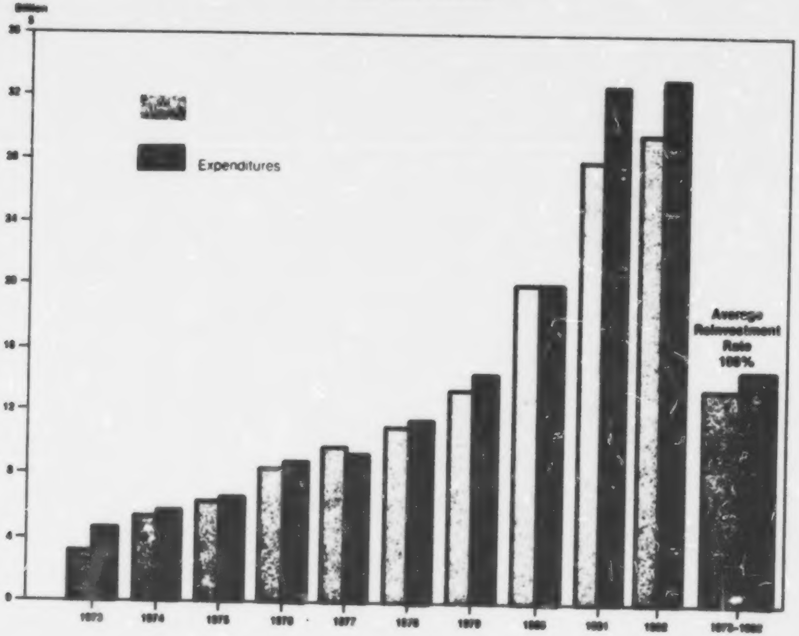
Second, it is not on a per company or per taxpayer basis, but reflects cumulative totals for all independent explorer/producers.

Third, it includes those amounts expended which are derived from borrowed funds and, more importantly, funds invested by outside investors which are an important source of risk capital for independents.

CHART 7

REVENUE VS. EXPENDITURES

Independent Producers



Source Bureau of the Census

IPAA Chart
June 1985

Finally, it reflects the harsh reality that in petroleum exploration/production, there are a significant number of outright losers where investment in any given year may be a total loss or produces much less income than the amount invested. Despite improved technology, this remains a very high risk business.

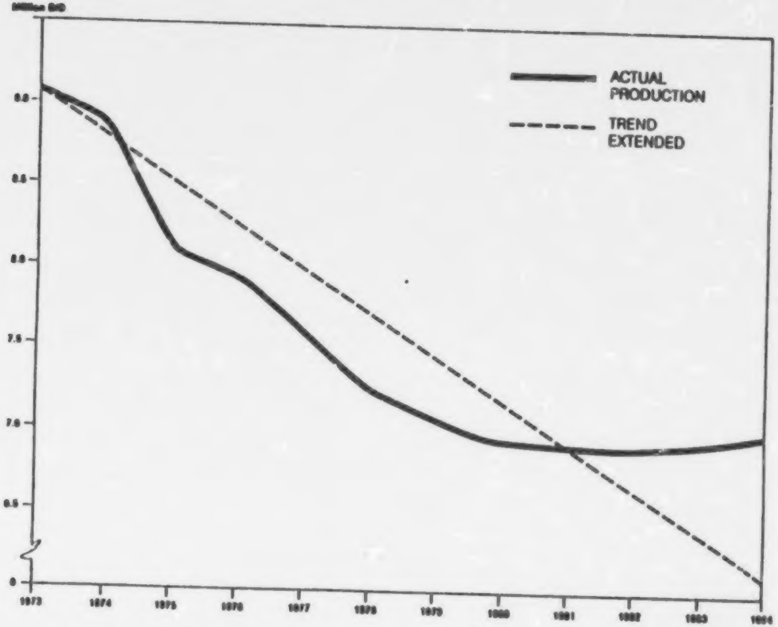
Investment Produces Supply Response

The perception is that regardless of how much drilling is done in the U.S., our reserves are so depleted there is no improvement in domestic production.

The reality is that these extraordinary investment and drilling efforts have begun to pay off. As shown in Chart 8, the sharp decline in oil production was halted and production stabilized by increased drilling effort. Independent producers drilled 247,064 new oil and gas wells in the six years ending in 1984 -- more than twice the number drilled in the previous six year period. Chart 9 illustrates the dominant role played by independent producers in this domestic drilling activity. Without this effort by independents, U.S. production would have been 1.3 million barrels per day less in 1984 and imported oil would have cost $15 billion more. But this gain in drilling required the expenditure of $257 billion -- an increase of 217 percent over the six years prior to 1979.

RESPONSE TO DRILLING EFFORT

Crude Oil Production



Source: DOE/EIA (Data for lower 48 states)

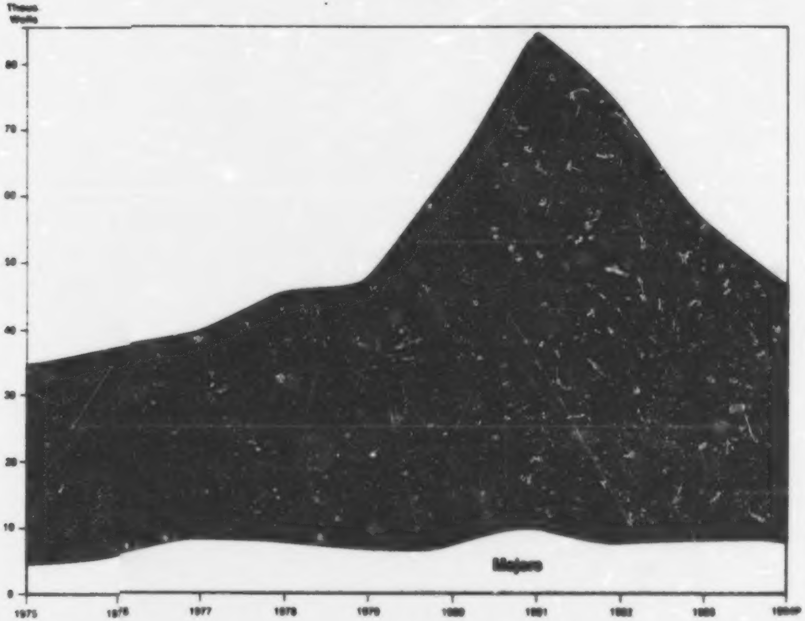
IPAA Chart

CHART 8

226

TOTAL WELL COMPLETIONS

Independents vs. Majors



Source: Petroleum Information, Inc

IPAA Chart
June 1985

CHART 8

These high rates of investment and drilling activity were possible only with large sums of outside venture capital. Today, outside capital for oil and gas production has dried up significantly since the highwater mark in 1981. For example, in 1983, outside investment in SEC registered petroleum industry funds was $2.98 billion, but declined to $1.54 billion in 1984. For the first quarter of 1985, that figure was only $151 million, which would indicate a projected total for all of 1985 of approximately $600 million, a decline of 80 percent in only two years.

Direct Government Action

The perception is that it is less costly for the government to directly subsidize energy security through such programs as the Strategic Petroleum Reserve (S.P.R.). The reality is that from 1976 to 1985, $17.8 billion has been spent to purchase and store 500 million barrels of imported oil in the S.P.R. We have spent $7.9 billion so far on synthetic fuels and we will spend another $5 billion through 1989 in tax credits for energy conservation -- altogether some $30.7 billion. If just the $17.8 billion spent so far on the S.P.R. had been available to domestic producers for exploration and drilling efforts, it could have resulted in over 500,000 barrels per day of new production over a ten-year period. This is 190 million barrels per year. Think of the positive impact on the entire economy if those funds had been spent in the U.S. for goods, services and jobs instead of being paid to foreign governments to purchase their oil. Think also about the positive effect on our balance of payments of displacing 190 million barrels per year of imported oil with domestic production. Another reality is that we can neither store nor conserve enough oil to meet the needs of industry, consumers or national defense except in the briefest of temporary supply disruptions.

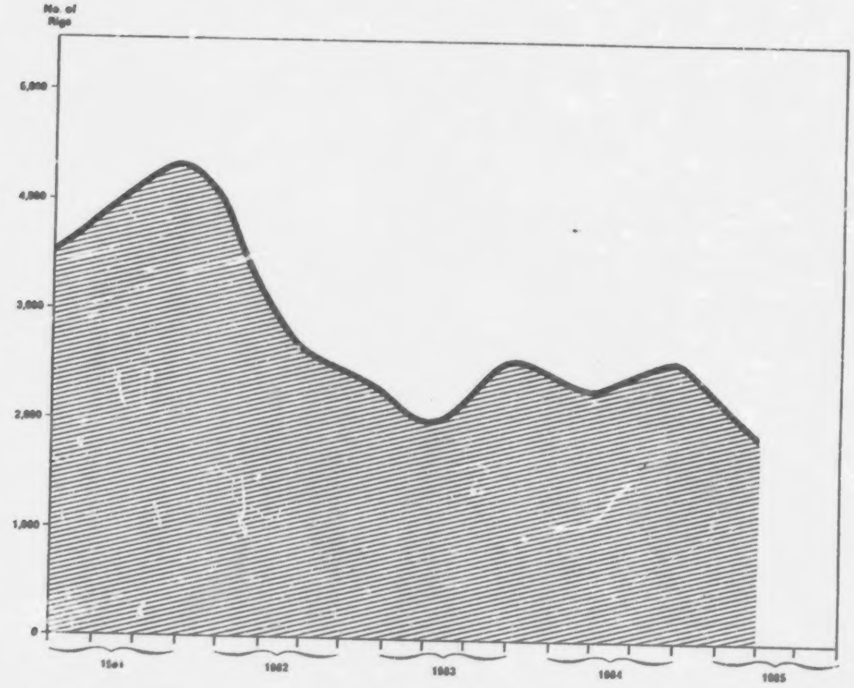
To radically alter, in a negative fashion, the tax treatment of our principal energy industry -- in the face of the direct expenditures government is making to improve our energy security -- would be a classic case of government working at cross purposes.

Constricted Petroleum Activity

The perception is that our industry could stand a little economic pruning, the Treasury itself acknowledging that its November proposals would cause a flight of capital from domestic oil and gas exploration which, according to the author of that document, could be better utilized in other areas.

The reality is that our industry has already experienced a four year "shake out" that has eliminated all but the most efficient. Chart 10 shows the trends for active rotary rigs and Chart 11 shows seismic crews working. Both of these trends show a crippled industry. Today our rig count is 38% of the total operating in December, 1981. The seismic crew count is at its lowest level since the first quarter of 1979.

ROTARY RIGS OPERATING



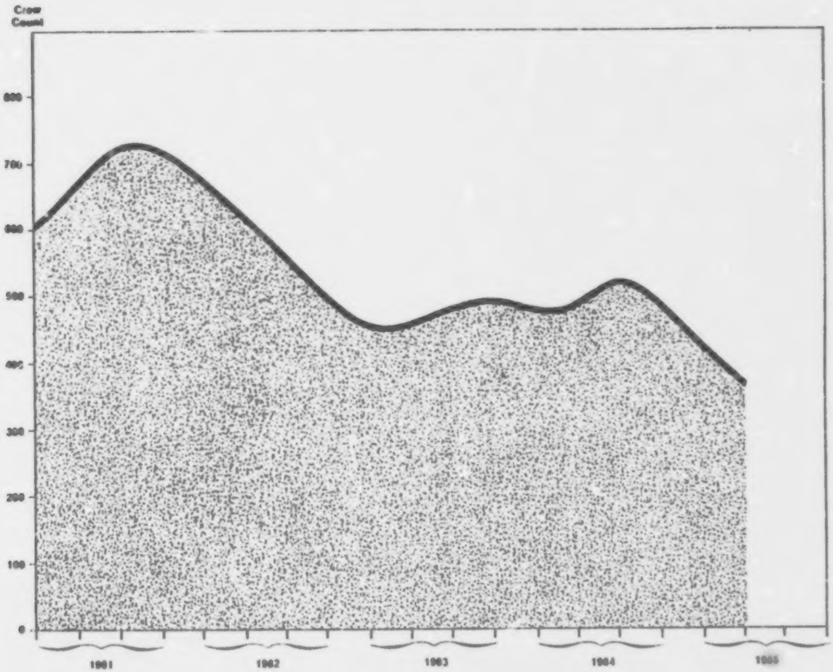
Source: Hughes Tool Co.

230

IPAA Chart
June 1985

CHART 10

SEISMIC CREWS WORKING



Source: Society of Exploration Geophysicists

IPAA Chart
June 1985

CHART 11

231

EXPLORATION/DRILLING
RESPONDS TO TAX CHANGES

Another perception is that spending for exploration and development responds only to changes in oil prices, therefore tax changes have no impact on such activity.

The reality is that expenditures for operations other than exploration and drilling are relatively fixed and beyond control of the individual producer. The only area for significant flexibility is the exploration and drilling budget. Thus, any change in cash flow is translated almost directly into a corresponding change in exploration and drilling outlays. Most independents produce both crude oil and natural gas, thus, their cash flow stream is a composite of the wellhead price of both commodities. Cash flow is affected by changes in either (a) the wellhead price of crude oil or natural gas, or (b) the tax treatment of income and expenditures. In the past 15 years, the three most significant tax changes for oil and gas producers were:

1) November, 1969: the applicable rate for percentage depletion reduced from 27 1/2 percent to 22 percent.
2) March, 1975: percentage depletion repealed for integrated oil companies.
3) March, 1980: adoption of the crude oil windfall profit tax.

The 1975 and 1980 tax changes both occurred during periods of rapidly increasing wellhead prices of both crude oil and natural gas. In both cases, the decrease in revenues attributable to the tax change was more than offset by price increases. In contrast, the 1969 reduction of the applicable rate for percentage depletion occurred at a time of essentially flat (but slightly increasing) crude oil and natural gas prices. In the following year, 1970, exploratory drilling in the United States declined by 21 percent, the largest drop in exploratory drilling in a single year in the history of the oil industry. Another sharp decline followed in 1971. Exploratory drilling did not recover to the 1965 level until 1977, even though oil and gas prices began to rise dramatically after the 1973 Arab oil embargo.

Percentage Depletion Recovers Capital

Another perception is that percentage depletion is a "free" deduction or "production subsidy" to the oil and gas industry, completely lacking economic merit.

The reality is the concept of percentage depletion accurately reflects the underlying economics of the oil and gas industry. Differential tax treatment, which reflects the nature of the economic activity, must not be confused with preferential tax treatment. Percentage depletion makes economic sense for the following reasons:

(1) Oil and Gas Producers Must Discover Their Capital Assets

Oil and gas producers must discover their capital assets (oil and gas reserves). In other words, they must invest funds (usually 100% equity), typically from internal cash flow, which are totally at "risk" to drill a well to find an asset (oil and gas reserves) that may or may not exist. Even though technological developments, primarily sophisticated geophysical and seismographic techniques, have greatly aided the continuing search for hydrocarbons, only drilling can determine whether, in fact, commercially produceable reserves exist.

(2) Oil and Gas Properties Have No Residual Value

Oil and gas is truly a wasting asset. Once the oil and gas has been extracted, there is no residual value -- it is gone forever; it cannot be physically "replaced."

(3) Percentage Depletion Approximates Installment Sale Treatment of Capital Assets

Production of oil and gas may be appropriately visualized as the liquidation of an asset over the productive life of the oil and gas reserves. Accordingly, each dollar of production income is a mixture of capital gain and ordinary income. The capital gain element represents that portion of the production income that is a direct result of the entrepreneurial risk of drilling, i.e., the "value" of the oil and gas in the ground, prior to extraction. The ordinary income element represents the income that a purchaser of the oil and gas reserves (after discovery) would require for an acceptable return on his investment. Based on today's economic climate and the tax rate structure proposed by Treasury II, the percentage depletion rate should be at least 19%. Under the current law rate structure, the percentage depletion rate should be at least 23%.

Contrast, if you will, the typical oil and gas drilling venture with a typical real estate investment. The total cost of drilling the well must be paid in full from current cash flow or investor capital and with a 30 percent potential for total loss of investment. If completed as a successful well, the production, and therefore income, normally will decline approximately 50 percent during the first two years of operation. During the next four years, production will continue to decline another 25 percent. The remaining 25 percent of total production may occur over a period of an additional six to twenty years at a continuously declining rate. Some stripper wells may take 40 years to produce the last 25 percent of reserves.

When total economically recoverable reserves have been produced, the well must be plugged and abandoned at considerable additional costs. The producer essentially has nothing left -- no structure or building, no real estate, no remaining leasehold estate.

In contrast, a commercial office building would normally require no more than 20 percent cash equity with the balance being borrowed. The chance of failure is near zero and once completed, the physical structure, even if not capable of returning full completion costs, can be sold for a partial recovery at worst. The full cost, not just the cash equity, is depreciated over eighteen years after which the investment has a remaining useful life of at least ten to twenty years. Each year throughout the productive life of the building, total annual rents are produced which equal or exceed the previous years income, rather than declining each year. At the end of the useful physical life of the structure, the owner would have valuable real estate, or a leasehold interest remaining which is worth perhaps more than its original cost as the result of appreciation in value.

The substantially different economics of the two situations call for different tax treatment.

(4) Percentage Depletion Recognizes that Replacement Costs Get More Expensive Over Time

The perception is that percentage depletion is similar to depreciation and should not recover more than the direct cost of drilling the producing well. The reality is that depreciation is essentially a mechanism that permits a business enterprise to recover its capital assets over their economic lives. It is justified on the basis that only income, and not capital, is subject to taxation. Generally, absent adjustment for inflation, replacement cost of a capital asset for most businesses roughly corresponds to historical cost.

The concept of depletion of exhaustible resources, such as oil or gas, is entirely different. Replacement costs (costs of finding and developing replacement reserves) increase in the oil and gas industry simply because new reserves are increasingly difficult to find. Over time, new reserves become both more remote geographically and deeper. Drilling costs increase geometrically as depth increases. For example, in 1983, costs for onshore wells from 5,000 to 7,500 feet deep averaged $287,200 while wells 2 to 3 times as deep, from 12,500 to 15,000 feet, averaged $2,240,000 -- almost eight times as much. If depletion deductions were limited to cost, oil and gas operators would, in essence, be in forced liquidation over time.

(5) Percentage Depletion Recognizes that Successful Wells Must Pay for Unsuccessful Wells

The perception is that percentage depletion allows recovery of more than the cost of a capital asset. The reality is that the income from successful wells must not only recover their cost, they must also cover the cost of all the dry holes, plus costs of those wells which are completed as producing wells but which never produce sufficient income to recover the full cost of drilling and completing the well. Unless enough revenue can be retained out of current income, the producer will not have the cash to pay for exploration and drilling of future wells to replace reserves currently consumed. The reality is that petroleum exploration and development is still very high risk: 70% of exploratory wells, 20% of development wells and 30% of all wells drilled are dry holes -- total losses of capital. Many other wells are statistically "successful" in that they are completed as producers, but never pay out the cost of drilling and equipping them for production.

Percentage depletion is simply a recognition of the economic realities of petroleum exploration and development.

IDCs Are Unrecoverable Expenses

Another perception is that expensing of intangible drilling costs (IDC) is a contrived, artificial deduction that the oil and gas industry has used to avoid its tax liability. The label "intangible" is misleading. A more accurate term is expenses for unrecoverable items for exploration and drilling. It is not an artificial accounting device. It requires the current expenditure of a dollar for each dollar of IDC deduction.

In reality, IDCs are those direct expenditures made for items such as wages, fuel, repairs, hauling, supplies, etc., necessary for the drilling and preparation of wells for production. They are items which, in and of themselves, have no salvage value. Other industries currently deduct expenses similar to IDCs, i.e., hard dollar expenditures for items which, once acquired, have zero capital value. What many do not understand is that all tangible items on successful wells -- things retaining capital value like pipe down the hole, pumps and wellhead equipment, separators, compressors, tank batteries, gathering lines, etc. -- are capitalized for tax purposes and amortized over time just as tangibles of other industries are treated. IDCs are funded with cold, hard cash. IDCs typically cannot be financed by a bank or other financial institution, but must be paid with an operator's internal cash flow or outside equity money supplied by investors. IDCs are, in a sense, analogous to ordinary and necessary operating costs in any other business, since a continuous quest for new reserves through additional drilling must occur to avoid gradual liquidation of the business enterprise. IDCs are the ordinary recurring cost of doing business in the petroleum exploration and production industry.

Still another perception is that IDCs are no different than expenditures to construct a permanent structure such as an office or apartment building for which recovery of costs should be matched with future income.

The reality is IDC expenditures are made before a capital asset is known to exist, or if found to exist, whether it will produce income sufficient to recover the expenditure. As stated before, in spite of technological advances, only the actual drilling of a well will determine if produceable oil and gas reserves exist in a given location. Even after a completion attempt has apparently been "successful," there is no way to conclusively determine the extent of the oil or gas reserves; petroleum engineering is far away from being an exact science. The oil and gas industry, and I personally, can document hundreds of cases where a discovery well, which was thought at the time of completion to be a "significant" find, fizzled out only a few months later into a well that would never return the operator's investment due to any of several possible causes which cannot be determined in advance. If IDCs were required to be capitalized, many of these wells would be abandoned, to write off the remaining IDC and not "carry" the cost, even though the oil or gas recovered would mean that much less oil or gas would have to be imported.

The fact is, expensing of IDC in the oil and gas industry fosters the concept of "economic neutrality", because completion and operating decisions are not influenced by the tax treatment of IDC. Decisions whether or not to attempt to complete an oil or gas well, for example, should be determined solely on the prospect of whether costs after the casing point may be recovered through future revenues, since costs to the casing point are "sunk costs." Capitalization of IDC would distort our economic decision making process.

STRIPPER WELLS

The perception is that stripper wells are a relatively insignificant part of our energy supply picture.

The reality is that stripper wells are a vital element of our domestic petroleum supply. In 1983 (latest data), stripper wells accounted for 14% of domestic crude oil supply. Significantly, each barrel of stripper well production displaces one barrel of imported oil, thereby reducing the balance of payments deficit and helping to hold down crude oil prices.

Perhaps just as significant as the present supply provided by stripper wells is the availability of known reserves represented by stripper wells. Typically, no more than 25 - 30% of the total oil in place is recovered by primary production. Another 15 - 20% can be recovered by secondary and enhanced recovery operations possible with today's economics and technology, but 40 - 60% of the oil remains in place when a well is abandoned. So long as stripper wells remain in production, the vast reserves underlying those wells remain available to be produced in increased volume as economic conditions and technology improve, thus permitting initiation of enhanced recovery operations. However, the economics of the petroleum industry are such that once a well is plugged and abandoned, it is extremely rare that the underlying reserves would ever be tapped in the future by drilling new wells. The cost of drilling new wells compared to the cost of maintaining production from existing wells is prohibitive. The Interstate Oil Compact Commission estimates there are 4.6 billion barrels of oil reserves underlying existing stripper wells, produceable by primary or secondary production already in place or where secondary operations are not in place but present economic conditions are favorable for implementation of such projects. Significant additional reserves will become available as improving economic conditions and technology permit initiation of other enhanced recovery techniques such as injection of steam, chemical polimers or other chemical stimulants now being perfected.

Stripper Well IDC

Another perception is that because stripper wells are already in production, expensing of intangible drilling costs (IDC) is not important to stripper well production. The reality is that many wells are drilled when it is known that if they are successful, they will initially produce more than the stripper well limit, for example 20-30 barrels per day, but within only a few months will rapidly decline to less than 10 barrels per day and continue at the reduced rate throughout their productive life. In certain geologic formations which are the principle producing formations in certain states, virtually every well drilled is certain to be a stripper well within the first year after it is completed. Without the ability to currently deduct IDCs, many, if not most, of such wells will not be drilled.

Another reality is that intangible drilling costs are a significant part of the cost of operating secondary and enhanced recovery projects. Such projects typically involve the drilling of additional wells for injecting water or other production stimulants and the installation of substantial additional equipment, some of which is categorized for tax purposes as "tangible" and some as "intangible." If the cost of drilling the additional wells and other associated intangible expenses cannot be deducted at the time the expenditures are made, the loss of cash flow and increased after-tax cost of such projects means many would become uneconomic and therefore not be undertaken.

Percentage Depletion

Certainly the availability of percentage depletion for stripper well production is a critical factor. Because stripper wells, by definition, are economically marginal, they are extremely sensitive to changes in either price or tax treatment. Particularly in times of declining prices, such as we have experienced for the past several years, percentage depletion becomes the determining factor in whether or not a particular well is maintained on production or plugged and abandoned as being uneconomical to operate.

Windfall Profit Tax

Another tax provision affecting the maintenance of stripper well production is the Windfall Profit Tax Act restriction on transfers of stripper well properties from integrated companies to independent producers. Many stripper wells, which could have been economically operated by independent producers, have been prematurely abandoned since 1980 because of this limitation. Consequently, the nation has lost millions of barrels of already discovered reserves which are no longer available for production.

CONCLUSION

In conclusion, I would like to make three points:

First, the reasons for granting differential tax treatment for oil and gas exploration and production are as compelling today as when those provisions were first enacted. Short term market fluctuations such as the current "oil glut" must not lull policy makers into forgetting that America must maintain the focus of energy policy on achieving energy independence over the *long-term* or this Nation will be held hostage to unacceptable petroleum import dependence.

Second, tax provisions are an efficient and effective tool in accomplishing our energy goals. Current tax provisions are a vital force in encouraging investment of the unprecedented amounts of capital required over the next decade to achieve our energy needs.

Finally, proposals to change current oil and gas tax provisions will irreversibly damage the domestic petroleum industry. These impacts will exacerbate negative trends in an already crippled industry. With the domestic industry now operating at only one-half the needed level, having idled almost 60 percent of operable drilling rigs, adoption of the Treasury energy tax changes could collapse what is left of our exploration effort. This would cause substantial declines in domestic oil production within six months, with accelerating declines thereafter. Our chronic balance of payments deficit would worsen and OPEC's influence over energy markets and prices would be strengthened.

Thank you for your attention.

The **Chairman**. Is the Texas Oil & Gas Corp. a member of your association?

Mr. **Jones**. Yes, sir, they are.

The **Chairman**. All right. They are going to testify a little later basically saying they support the President's proposal, and that it will not diminish the capacity to provide energy in this country.

Mr. **Jones**. Mr. Chairman, we do not support the President's proposal insofar as it pertains to the oil and gas provisions per se. The loss of percentage depletion, the phase-down of percentage depletion for oil producers, except the stripper wells, would be a devastating effect on the independent segment of this industry, Mr. Chairman.

The **Chairman**. Let me ask you a further question. We build all of our military ships in this country; we require them to be built American, or otherwise my hunch is they would all be built overseas, as most of our commercial ships are now unless we subsidize them.

If we were to adopt a similar policy for energy and have a phase-in period of 10 years, could this country be energy independent? I might qualify that by saying we might make some exceptions for Mexico and Canada, as bordering neighbors, and connecting pipelines. But if we were to simply say to all energy, "You are going to lose all of your unique tax preferences; you will be treated like other corporations," couldn't we be energy independent, counting our reserves of coal and shale and hydro and the capacity to go nuclear if we wanted, plus oil and gas?

Mr. **Jones**. Well, I think from a practical point of view, this will not happen, because we have a period of transition from the fossil fuel industry to the exotic fuel industry, which you are talking about, which I think we couldn't achieve over that short a period of time.

The **Chairman**. I don't regard coal and shale and hydro as exotic. I mean, those are relatively well-known technologies.

Mr. **Jones**. That's right, sir.

Mr. **DiBona**. Could I try to answer that question, sir?

The **Chairman**. Yes.

Mr. **DiBona**. We think that with a very major effort in oil and gas exploration, we can stabilize oil production in the United States. We don't think that we can increase significantly the oil production in the United States. And that is simply because we have many fields which are depleting. So simply to hold the line on current production, maybe a small increase is about the most we can do, and it involves very, very large expenditures to do that.

We believe we can do that, and we believe we can do it for an extended period of time—that is, we can do that for decades—if we are permitted by the tax law to do it, and if we are permitted, among other things, to drill in the Outer Continental Shelf, off California for example.

The liquid fuel is used principally and heavily for transportation. Right now there has been a shift out of liquid fuels for things for which coal can be substituted; for example, electric generation. And natural gas is also substituting for some of that. But there is a residual amount in which you simply need liquid fuels. It is the prime fuel; it is also the one you tend to substitute when you run into shortages in other places.

So we anticipate a major effort that could stabilize production, therefore limit the amount of imports. Eventually those who will be coming more from the Mideast than they are today, and that will last over some period of time. But the difference between being able to do that and not do it is the difference between having a controllable situation and one in which we would be in very serious trouble, more serious than we were in 1979.

The CHAIRMAN. Well, let me ask my question again: Do we have enough energy resources in this country to be energy independent, if we chose to, realizing that might be a higher price than we pay, because we are going to have to embargo imported energy?

Mr. DIBONA. Oh, the answer is yes.

The CHAIRMAN. The answer is yes?

Mr. DIBONA. Yes; because there is enough shale oil in the Rocky Mountains. There is more shale oil in the Rocky Mountains than there is oil in the Mideast. It is very expensive to get it out.

The CHAIRMAN. So if we closed our borders—there may be an exception for Canada and Mexico—deregulated the price of all energy so that we give no artificial advantage to gas versus coal versus hydro versus some other, we could be energy independent? I don't know if that would be oil or if rather we would end up making gasoline out of coal—I am not sure where the economics would come out—but we would have the resources to do it, natural resources?

Mr. JONES. Mr. Chairman, we do have the resources, as you said. If price were not the determining factor, we could become self-sufficient.

We talk a lot about our neighbors to the south, Mexico, and Canada to the north. Let's don't forget that during the early 1970's Canada did join the group that cut the spigot off on the United States, and Mexico enforced curtailments as late as 2 years ago and has the current policy that, if any imports are increased to the United States, it will be at a maximum level of 50 percent of their increased imports for the United States.

The CHAIRMAN. I was thinking only of extending the right to our market to them as a matter of comedy or perhaps as an exchange for some quid pro quo in some other trade areas. I think we could do it without them and still be energy independent, that our resources are sufficient.

But my time is up. Senator Long.

Mr. JONES. Thank you.

Senator LONG. Mr. DiBona, in your statement you referred to the problem level of OPEC production. Would you explain what you meant by that?

Mr. DIBONA. Well, what I mean by that is that we ran into trouble in the 1970's when 80 percent of the capacity of OPEC was currently being sold; that is, when the excess capacity in OPEC gets below 20 percent, then it is quite easy for them to cause quite severe shortages, or any problem in any part of OPEC can bring that about.

So we are simply saying that currently OPEC is delivering around half of its oil. But over the next several years world consumption is anticipated to rise, not at the rates at which it rose in the past. How fast it will rise will depend on how much the price softens and what the strength of the dollar is. One of the reasons it hasn't risen in Europe is that the price of oil, for example, in France has risen around 30 percent while it has fallen 35 percent here because it is priced in dollars, and the dollar has gotten that much stronger against the French franc, for example. In any case, we anticipate an increase in consumption.

And when you look at the rest of the world, outside of OPEC, where the likely production is coming from, and the decline generally in most ports, there is no question but that each year we will see a bigger fraction of OPEC's consumption used. And sometime in the early 1990's we anticipate they will hit 80, and then it will get to 90, and more. So about the time it hits 80 is when we start to get in trouble. And that is almost inevitable. The only question is, What date? And you can help to control that.

Senator Long. Let me get this straight. What you are saying is that about 1990 this so-called problem level of OPEC production will be reached? Is that the date you gave us?

Mr. DiBona. I said the early 1990's. It could be as early as 1990 if the price fell quite dramatically; it could happen in 1990. And this is all, incidentally, without any Middle East crisis. I mean, this is assuming there is no crisis in the Middle East. If prices stabilize it will be a little later.

Senator Long. When that happens, when the excess capacity of the OPEC organization, the Organization of Petroleum Exporting Countries, is less than 20 percent, then you are vulnerable to the kind of thing that happened to us twice?

Mr. DiBona. Exactly right.

Senator Long. I am referring to the boycott, when we had people standing in line and havoc in this country with runaway oil prices and the rest.

Mr. DiBona. That is exactly right, Senator.

Senator Long. That is what you are urging that we build against so we have enough capacity to protect ourselves?

Mr. DiBona. Yes.

Senator Long. Thank you.

The Chairman. Senator Boren.

Senator Boren. Thank you, Mr. Chairman.

Mr. DiBona, did you say that if all the taxes that have been talked about, the changes in tax laws—what was the figure you said in terms of shortfall? Was it $1.6 or $1.9 million?

Mr. DiBona. Well, the loss of IDC's alone would create a shortfall of 900,000 barrels a day in 1990 and 1.6 million barrels a day in 1995. And those are our numbers, but they are pretty consistent with the numbers that have been worked by DRI and the Department of Energy, and others.

Senator Boren. And I would assume that when you add ITC's as they affect other segments of the industry and impact the amount of funds that are available then for exploration and development because the industry is tied together in terms of its revenues, that it would be significantly above that figure.

Mr. DiBona. That is right. The estimate of the Department of Energy for that, when you take the oil equivalent of the gas production, is about a quarter of a million barrels more.

Senator **Boren**. I read an interesting article over the weekend in the Washington Post analyzing the downward drift in world oil price and some predictions that it could break quite substantially and quite suddenly, some outside projections all the way down below $20, even as far as the $15 range. Now, if that were to happen, I assume in the short run—and I might address this to Mr. Jones as well, because the first impact might even fall more heavily on the independent producers initially—if you had that kind of steep drop in oil price coupled with the additional taxes that were talked about here, what would you say that it would do to the domestic industry, particularly to the independent segment of that industry?

Mr. **Jones**. Well, we are such a capital-intensive industry, Senator, that I think the drop in cash-flow would be coming right off the top line, the bottom line, really, as it would pertain to the drilling effort in this country, and you could expect that those cash dollars which we always put back into the ground, over 100 percent, as you know, would be lost to the industry.

Senator **Boren**. So if this were to happen sudenly, especially if we were to unwisely add tax burdens to it, I guess some people would say, "Oh, as energy consumers, maybe in the short run this is a fine thing for us," but in fact it would be creating a devastating problem for all of our consumers in this country probably before the end of the decade, according to what has been said here, because you are going to increase your shortfall even more, probably more than 2 million barrels a day, if you coupled those things together. Wouldn't that be correct?

Mr. **Jones**. That's right, Senator. You know, in 1981 when we had 4,000 rigs running, we barely replaced the energy we used. Now we have just over 1,900 rigs running, so you can see the problem we are getting in even without these punitive tax burdens that are being considered.

Senator **Boren**. Plus the ripple effect that this may have on other segments of the economy. If you had this kind of a sharp, steep decline, it affects financial institutions and others. And as we have seen, even with the relatively small situation with the Penn Square Bank, that would be very, very small compared to what we are talking about if we were to see a combination of taxes and price drops as is being talked about.

But let me focus again on what points you made. Let us suppose that we faced, in the neighborhood of 1990, through this combination of these developments, and it could be far more serious if you had a crisis in the Middle East as Mr. DiBona said, but let's say at a minimum you are facing through a combination of taxes and price drops a 2-million-barrel shortfall, and then you did have some reason that you had to find a way to make that up domestically. Now, if you really exported those 500,000 jobs and geared down the domestic industry, as would occur during this period of time, how long would it take us to react to that crisis? How long would it take to be able to develop the capacity in this country again to bring that level of production back to, say, 1½ or 2 million barrels a day in this country?

Mr. **DiBona**. It took us 10 years last time, and it would take us about that time. Now, we would probably just about achieve a growth in production about the time that the next glut would arrive.

Mr. **Jones**. We are just now seeing the results of the drilling that was done in 1978, 1979, and 1980. And we would see this drop off to about 1990, and then it would take us until 2000 to really start, I think, this industry rolling again.

Senator **Boren**. Well, I think that is a very important point. So often we react to crises in the political sphere, and for once I would hope we would be farsighted enough to realize that you just cannot have an instant reaction if you allow the domestic industry to be destroyed or significantly curtailed over the next 4 or 5 years through a combination of an additional tax burden and price drops.

Mr. **Jones**. That is one of the most critical misperceptions that I think the American people have today—that is, that the oil industry is a spigot that you can turn off and on. It takes 5 to 10 years. And that story has got to be told to the American people.

Senator **Boren**. Thank you very much.

The **Chairman**. Senator Bradley.

Senator **Bradley**. Thank you very much, Mr. Chairman.

You know, I am beginning to feel, sitting in these hearings, a little bit like I would like to have somebody surprise me. And nobody is surprising me, Mr. Chairman; everybody is coming in and telling us that if we do tax reform that is just fine, but——

The **Chairman**. Mr. Hoglund is going to surprise you.

Senator **Bradley**. Is he going to surprise me?

The **Chairman**. Yes; I think so.

Senator **Bradley**. Well, I might stick around for that. [Laughter.]

I would like to ask the panel a few questions. Let's assume that we don't import any oil. Let us assume we are energy independent. Let's also assume that our major trading partners, like Western Europe and Japan as well as some of the major debtors like Brazil and Argentina, all continue to import oil. Now, let's assume also that there is a big oil supply disruption in the Middle East. The price of oil goes up to $60 a barrel. What happens to the domestic price in these circumstances?

Mr. **DiBona**. Well, currently the price would rise to the world price; it would clear at the world price. But that does not mean that an American producer would get it, because there is a windfall profit tax.

Senator **Bradley**. Yes.

Mr. **DiBona**. And therefore, any increase in price for some oil is taken 70 percent by the Government.

Senator **Bradley**. But the price would go to $60.

Mr. **DiBona**. Correct.

Senator **Bradley**. What happens to the economies of our major trading partners in Europe and elsewhere?

Mr. **DiBona**. They would be hurt considerably by that.

Senator **Bradley**. They would be in a serious recession, or an inflationary recession, like they were in the mid-1970's?

Mr. **DiBona**. That is correct.

Senator **Bradley**. What does this do to the U.S. economy?

Mr. **DiBona**. Well, that obviously hurts the U.S. economy, but it hurts it less than if we had chosen a course which caused us to be purchasing lots more oil at that time; that is, to the extent that we have reduced our dependence upon foreign oil, the price rise will be less, and therefore it would have been a wise step for us to have taken.

We are not suggesting, incidentally, that we should drive the U.S. dependence to zero.

Senator **Bradley**. Yes. My only point here is to just illustrate that even if the United States was energy independent, and there was a disruption in the supply of oil, our economy and our security would be hit exceedingly hard. The reason is that what counts is how much we consume, not how much we import. And because we consume more than any other nation, regardless of the source of the oil, we'd be hurt most by a disruption.

Mr. **DiBona**. Yes.

Senator **Bradley**. I remember some of the studies in 1979 that lost output was a couple of hundred billion dollars, even if we had imported no oil.

Therefore, the issue is not that energy independence is not a long-term goal, but that it is not the answer. We need protection against a supply disruption; that is what we really need.

I have an article here from the Wall Street Journal that I thought made an interesting point, and I would like to read you a couple of sections of it to see if you agree with me.

It talks about the tax preferences in the code for the oil and gas industry, then it talks about the windfall profit tax, and the relative impact of the two. And it makes the point that the oil industry does not receive net tax preferences—net tax preferences—in the President's proposal. It goes on to say,

> Oil companies can reduce 15 percent of gross revenues from selling up to 1,000 barrels a day. True, also, they can write off 80 percent to 100 percent of their intangible drilling costs. These are the well-known tax preferences for oil production that would amount to about $1.10 a barrel in 1986.

Is that roughly ballpark?

Mr. **DiBona**. I don't know exactly how much it is a barrel.

Mr. **Jones**. I am not sure where that came from, really.

Senator **Bradley**. Well, it is a combination of the depletion allowance and the intangible drilling cost deduction.

Mr. **Jones**. Yes. Right.

Senator **Bradley**. But more than offsetting these tax preferences is the so-called windfall profit tax on oil.

And it goes on to say that "the windfall profits tax on oil is 30 to 70 percent of the difference between the price of oil and base price," and that is assuming a $26 price of oil, and that means that the tax ranges anywhere from $1.50 to $5 for various categories of oil, right?

Mr. **Jones**. Yes.

Senator **Bradley**. So the tax preference is worth about $1.10, and the windfall profit tax costs anywhere from $1 to $5 a barrel.

So if given a choice, why wouldn't you want to eliminate the windfall profit tax as opposed to keeping the preferences?

Mr. **DiBona**. Well, let me try to answer that.

The general thrust of that article in terms of its estimate of the current taxation of the oil industry is in fact correct. That is, as was demonstrated here and by your own committee, we tend to pay more taxes.

It is also true that, net of the windfall profit tax, we are paying more taxes. That is, there is no net tax preference on the exploration and production of oil and gas, because there are elements of the cost in which the rate of cost recovery is in fact slower than for comparable investment in plant and equipment in other industries. So if you sum the effect of those plus the expensing of IDC's, you are not experiencing faster cost recovery than for plant and equipment in other industries.

The CHAIRMAN. Senator Symms.

Senator SYMMS. Thank you, Mr. Chairman, and thank both of you for your testimony this morning.

Mr. Jones, did I understand correctly that you favored an import fee? Or was that Senator Boren?

Mr. JONES. I didn't address the import fee today, sir.

Senator SYMMS. Do you favor an import tax on foreign oil?

Mr. JONES. No, sir. We do not favor an import fee, because we think it would cause a discrepancy here in the United States between the consuming areas and the producing areas, and it would establish a large bureaucracy. It would have to be watched. And right now, at this time, we don't favor an import fee; although we are very concerned about imports, especially import products.

Senator SYMMS. Do you agree with that, Mr. DiBona?

Mr. DIBONA. Yes. I would add the point, I think, that Senator Bradley was raising. One of the reasons people talk about an import fee is because they are trying to encourage domestic development over foreign development of oil. The windfall profit tax effectively is a negative import fee.

The import fee, however, would raise the price of energy to other industries in the United States and therefore negatively affect our trade position. So we think it is an unwise way of doing it. The right way of doing it would be to eliminate the windfall profit tax.

Senator SYMMS. I have been concerned about it, also, because there is only so many dollars out there, and when you pit the competition for highway dollars for some States that are scrambling trying to fix their roads, then that has a direct impact on those States, by raising the price of fuel at the pump, and I think that is another concern that we have to look at, also.

I guess, then, or I have been told by the Treasury Department, that from Treasury I to Treasury II they put back in some 80 percent of the things that have been removed. Do you kind of concur with that, or how do you view this bill in general?

Mr. JONES. Well, in general, the Treasury II is a vast improvement over Treasury I, which was unbelievable to our industry. But there are still those provisions in Treasury II that would impact us so adversely that we could not support Treasury II as far as the oil and gas provisions are concerned.

We favor tax simplification and fairness, of course, but if we look at Treasury II, it is very scary when you consider what this would do to the supplies of domestic fuels in our country.

Mr. DIBONA. Well, IDC's have the biggest effect upon future oil development of the provisions that were excluded from Treasury I.

Senator SYMMS. IDC's?

Mr. **DiBona**. IDC's, right. And so that is a very important component. But nevertheless, what remains would reduce oil and gas production in the future.

Senator **Symms**. Well, people are pretty ingenious. If this bill passes in its current form, how many more wells that are currently regular producing wells are going to instantly become stripper wells? I mean, is there quite a bunch out there that would qualify if they just pumped a little bit less? Or is that a logical concern?

Mr. **Jones**. Well, if you can judge the future by the past, we have had a stripper well amendment come into being in the past that we didn't have before, and I don't believe the U.S. Government found the U.S. producers falsifying reports. If you will look at how we have managed our business in the past, I think we have complied with the law.

Senator **Symms**. No; I am not saying that. But what is the definition of a stripper well? Ten barrels?

Mr. **Jones**. Ten barrels.

Senator **Symms**. A day. Is there an economic incentive, if a person owned an oil well and they were pumping 15 barrels a day right now, just to cut it back to 10 and get the depletion allowance?

Mr. **Jones**. There would be an incentive to do that, but I do not think that you would see it done, judged on the past record that our industry has displayed.

Senator **Symms**. Well, the reason I asked the question, if it is a good idea to have a depletion allowance, why isn't it just a good idea to have it? I mean, who came up with the idea of 10 barrels a day?

Mr. **Jones**. The 10-barrel-a-day figure was decided through arbitration, of course, and along with that stripper well ruling was a ruling that the well had to be producing at its maximum efficient rate. And our industry complied with that requirement.

Senator **Symms**. Do you want to comment on that, Mr. DiBona?

Mr. **DiBona**. Well, I think you have to concede that the tax policy is going to affect behavior of the public, and so you are going to cause things to happen that would otherwise not happen. And anytime you set an arbitrary limit of that kind, it is going to have some negative effects, and one of them will undoubtedly be that some wells will be producing less than they might otherwise produce.

Senator **Symms**. Thank you, Mr. Chairman.

The **Chairman**. Senator Baucus.

Senator **Baucus**. Thank you, Mr. Chairman.

Gentlemen, I think it is clear that the goal of the country should be to increase as much domestic production as possible. We all want to do that, and certainly as we work with this tax bill we want to do whatever is appropriate to achieve that goal.

The problem, obviously, is that that generally means lowering taxes for everybody. And I understand your position; if I were in your shoes, I would have the same view—that is, that you want as low taxes as possible. So you come here, as do all organizations—I would do the same if I were in their shoes—arguing that position.

My question really is: If we do what you want us to do in percentage depletion, for example—and I understand you want to keep the current law and don't want any changes.

Mr. JONES. Yes, sir.

Senator BAUCUS. The question I have is: Where do we make up the revenue? Does the petroleum industry have any suggestion as to where the revenue should be made up, to the degree to which we agree with your position on percentage depletion?

Mr. JONES. Well, we do not have a suggestion as to how this tax bill should be written. We feel that the percentage depletion will create income which the Internal Revenue Service will ultimately enjoy an income tax from. So in large measure, we think that the measure takes care of itself as far as what our contribution to the income of the Treasury would be.

But as far as to come in and set specific examples or point to the man behind the tree and say, "Tax him," I don't think our industry would want to do that, Senator.

Senator BAUCUS. But instead of taxing the man behind the tree, do you have any suggestions where everybody is taxed instead of just the man behind the tree?

It just seems to me that the more you legitimately try to help your industry, the more you do that, the more I think you have an obligation to try to figure out how we are going to make up some of this revenue loss, too. We obviously want to cut the budget deficit, and we have to figure out some way to do that, in a responsible way that affects everybody evenly and fairly.

Mr. JONES. Well, of course, when you start talking about taking away percentage depletion, you are talking about additional taxes on our industry. And right now over the last 5 years our industry paid more taxes than any other industry in the country. And we have already had tax reform. We have already been paying our share.

Senator BAUCUS. If the value of the U.S. dollar falls to what some economists say is parity—that is, the U.S. dollar falls in relation to other countries' currencies, say 25 percent, roughly—what effects will that have on the industry, the domestic industry?

Mr. DIBONA. Well, the first effect it will have will be to increase the consumption of oil in the world. As I mentioned earlier, one of the reasons why oil consumption has not risen generally in Europe is that the price of oil has been rising in Europe while it has been falling here. Crude oil has fallen about 35 percent since the peak in the United States in dollars, but it has generally risen in most parts of Europe. The yen has stayed a little bit stronger relative to the dollar, and the consumption of oil in Japan has risen as a consequence of that.

Senator BAUCUS. But if the dollar falls, won't that make foreign oil more expensive?

Mr. DIBONA. No; because oil is priced in dollars around the world, so it should not——

Senator BAUCUS. It will have no effect on it?

Mr. DIBONA. It will cause the price of oil to rise, relative to what it otherwise would have done, because it will increase the consumption of oil in the world and therefore help to reduce the OPEC surplus, and therefore make it easier for OPEC to control their volumes.

Senator BAUCUS. What effect will it have on price? That is, what effect will it have on drilling activity in this country if the U.S. dollar declines?

Mr. DIBONA. Well, for any given tax regime, if the price of oil rises, the amount of oil exploration and production rises. It is a function of the after-tax expected future price.

Senator BAUCUS. So it is your view that, as the U.S. dollar declines, relative generally with other countries' currencies, that the drilling costs in the United States will rise?

Mr. DIBONA. I am not sure how the drilling costs in the United States will rise. What I expect would be that oil consumption worldwide would rise, and that eventually that would cause there to be a greater shortage of oil, and therefore there would be a rise in price relative to what otherwise would have been the case, and that will stimulate exploration.

Senator BAUCUS. So, yes, it will increase the drilling costs then, ultimately? Is that your analysis? I am just trying to understand what your analysis is.

Mr. DIBONA. Yes. I mean, there is no question that one of the effects of very high taxes in this country will be to cause a shortage of oil, which ultimately will cause a very sharp rise in the price of oil, which will cause us then to start exploring. But we will have to go through 10 years of critical shortage and gasoline lines before that brings about additional production. That is what we are trying to avert.

Senator BAUCUS. Thank you.

The CHAIRMAN. You both agreed, I think, that if we chose to this country could be energy independent, that we have a sufficient variety of natural resources. Is that correct?

Mr. JONES. We have the physical capacity to produce all of our energy. It would not be economically wise to do that, and no one is suggesting that we do.

The CHAIRMAN. Well, somebody may be suggesting it. It is not economically wise to build all of our military ships in this country, either, but we do it, for reasons other than economics.

Mr. JONES. Right. That could be a good reason, right.

The CHAIRMAN. Well, yes, it is a very good reason. I am not sure I want all our Trident submarines made in Tokyo.

Mr. JONES. Right.

The CHAIRMAN. And there may be some wisdom in a policy that says, just for our own national security—and that is one of the arguments that was raised with the administration to get them to change from Treasury I now, was national security.

Mr. JONES. Yes, sir.

The CHAIRMAN. There may be an argument in terms of national security to produce our own energy in this country.

Mr. JONES. Yes, sir.

The CHAIRMAN. And to do that, we may have to embargo the import of energy.

Mr. JONES. Of all energy?

The CHAIRMAN. Well, I am suggesting the possibility.

Mr. JONES. Well, if you took a policy like that, it would take a very long time to bring it about.

The CHAIRMAN. I am assuming it would be in decades.

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Mr. JONES. Yes.

The CHAIRMAN. Well, my hunch, assuming that it was an emergency, if we geared up as we did in World War II and went to a 24-hour week, 7 days a week, is that we would be amazed how quickly we could convert to domestic energy.

And if we did, would the price of energy be roughly the competitive price as between oil and coal or hydro, that whatever the most efficient form of energy was that we had in sufficient abundance would probably set the price for other forms of energy to match?

Mr. DIBONA. Yes; it would. With limitations on conversion, with plants that can't use one fuel or the others?

The CHAIRMAN. Yes.

Mr. DIBONA. It certainly would. And your question is a good question, because we saw in earlier years that as the price of oil does go up, alternative fuels do come onstream. It happens. It is part of the free enterprise system in America, and I think we would see it happening again.

Mr. JONES. I don't think I agree with that.

The CHAIRMAN. Use this in comparison with a country like Japan. They cannot be energy independent; they just don't have the resources. They can embargo all the energy they want, but they don't have coal, they don't have oil, they don't have gas, and they are just stuck—they have to import. We don't.

Mr. JONES. If it were possible today to produce all of our energy domestically and do it at a price equal to or less than the world price, we would be doing it. That isn't possible.

The CHAIRMAN. Well, we don't do it at the moment because there is world energy at cheaper prices.

Mr. JONES. Well, I think that is the other side of the same statment. Yes.

The CHAIRMAN. Well, the oil price, as you indicated, is set worldwide.

Mr. JONES. Yes, sir.

The CHAIRMAN. And as it goes down, it goes down here.

Mr. JONES.

The CHAIRMAN. And as it goes up, as Senator Bradley indicated, if it goes to $60 a barrel, it goes to $60 a barrel here.

Mr. JONES.

The CHAIRMAN. But it would not go to $60 a barrel if we had a decade-long import policy and the price of our energy was determined domestically. Then, whatever oil did internationally would not affect our domestic price.

Mr. JONES. That is because if we adopted a policy in the United States to spend whatever resources were necessary to increase the amount of production of energy, we would then hold down the world price of energy to everybody else. The net effect of that would be to raise the production costs in the United States of all other industries which are energy dependent and subsidize foreign imports in the United States, because they would be getting cheaper energy than we would.

What we are arguing for is not to raise the price of domestic energy, but to create a tax regime which permits us to produce, at world prices, as much energy as we can do efficiently. And that is the thrust of our argument.

The **Chairman**. A last question. As between Treasury I and now, you have gotten back the intangibles, by and large, although they have been thrown into the minimum tax, but a relatively slight amount compared to what you would have lost had Treasury I passed.

Still, you are saying if we pass the bill the way it is now, not Treasury I, but pass it the way it is, that will be detrimental to oil and gas exploration and discovery and production in this country.

Mr. **Jones**. That is correct.

Mr. **DiBona**. Yes, sir. The Treasury report does signify the loss of barrels that would be caused to the United States if Treasury II were passed. They recognize that in their own proposal.

The **Chairman**. Senator Long.

Senator **Long**. Mr. Jones, I think you might be able to explain what the independents have done in order to get their rigs back into operation after this very large decline in the price of the product. I know that a lot of them have had to lay off a great number of their workers, but I am told that many of them also have gone north to get their rigs back. They were not only laying off some workers but also called upon workers to take major pay cut. Everybody in the whole organization would take a cut in pay to try to get going again. A lot of that has been happening, has it not?

Mr. **Jones**. Yes, sir. I can address that on my own personal basis, because I am a small drilling contractor servicing my own company, and we have asked our people to take a voluntary cut; we have reduced our tool-pusher load, or increased it from one pusher watching one rig to watching two rigs; and we have cut out any special privileges like driving time and extra perks that the people were getting. We have slimmed down our operation in every way we can, and the other drilling contractors with whom I am familiar have done the same thing.

I think right now it is down to the bare bones, though. And if we reduce labor prices any more, we will not be able to hire people from the labor force.

Senator **Long**. Thank you.

The **Chairman**. Senator Bradley.

Senator **Bradley**. Thank you very much, Mr. Chairman.

If I could, I wanted to pick up on what the chairman said and ask the panel if an answer to his question, "Why don't we try for energy independence at any cost?" is simply that security is a relative thing. You could indeed have total energy independence, but because there is a limited pool of capital, you would be putting more capital into energy production, and that would mean less capital for other forms of investment in the country. Is that not correct?

Mr. **Jones**. Well, energy security, of course, does pertain to how much oil we are importing, and how vulnerable we are, and what kind of signals we are sending out to the people from whom we get the oil. And I think if we demonstrate to them that we are a healthy, vigorous industry, then we are less likely to be in the same vulnerable stage that we were in in 1973, and especially in 1978 and 1979 when we were importing 46 percent of our oil.

Senator **Bradley**. So, you could import no oil if you were willing to subsidize the production of oil from coal or shale or whatever, or other forms of energy, at a much higher price than you would have to pay for oil?

Mr. DiBona. That's correct.

Senator Bradley. And the question is, Why do we choose not to do that? We chose not to do that because we think that there are better ways to protect ourselves against the negative effects of an oil supply disruption; that is, you put oil in stockpile.

It seems to me that if you take the national security analysis and say, "Well, here we are dependent on this foreign oil, and we don't want to pay people $60 a barrel to produce oil from shale when we can get it out of the ground at $26 or $27," then in addition to the stockpile, the quickest way that we can improve our security is to save a barrel of oil. Because it is the level of our consumption that makes us vulnerable to price hikes, even if the oil is produced in the United States.

From a national security standpoint, isn't a barrel of oil saved the same as a barrel of oil produced?

Mr. Jones. Well, you are getting back to the "produce America first" question, and you also then are getting immediately into the leadtime aspect again. And when we get to the point where we say we are going to save our domestic oil, by that we are saying we are not going to have a viable, healthy industry. You can't have a viable, healthy industry and have the industry shut in.

Mr. DiBona. You have to ask the question—in answer to your question—you have to ask the question how much it costs to save the additional barrel. Currently, if you simply accept the world price, as we did not during the 1970's, you are getting the right level of conversation. And therefore, to spend more money conserving than that would be inefficient.

Senator Bradley. No, no. I am saying that the price, the decontrolled price of oil, is the primary reason that we have been able to conserve as much as we have in the last several years. Don't you agree with that?

Mr. DiBona. Yes; it is both the reason we have been permitted to conserve and that we have increased production.

Senator Bradley. And the flip side of Senator Packwood's suggestion that we just produce domestically is to look at what we went through in the 1970's, when price controls kept oil prices artificially low and home oil consumption was excessive. This means price controls. This means price controls didn't work. Don't you agree?

Mr. DiBona. It did not.

Mr. Jones. It did not work.

Mr. DiBona. Incidentally, you made an assumption that filling the strategic stockpile is an efficient means of dealing with the secular decline in our level of production, as opposed to a shortrun period of shortage. And that is not clear to me.

Senator Bradley. No; I argued that that is the way to deal with the disruption, not long-term events.

Mr. DiBona. OK. Good. We are talking about the long term.

Senator Bradley. Well, we are here talking about taxes, not energy policy, and we have established that all of the tax preferences are worth about $1.10, per barrel of oil produced, and that the windfall profits tax is anywhere from $1.50 to $5 a barrel. You are in a world where you are not going to get everything, let's say, and you have to choose. My question to you is, again: Why wouldn't you choose eliminating the windfall profit tax and giving up some of the preferences, rather than fighting to preserve a portion of the preferences and you have the windfall profit tax that is a much greater burden for you? Why wouldn't you want to get rid of the windfall profit tax, if you had one choice, instead of keeping the tax preferences?

Mr. DiBona. All I can tell you is that we think that good economic policy would be to keep IDC's and eliminate the windfall profit tax. [Laughter.]

Senator Bradley. Well, I know. [Laughter.]

Mr. Jones. Senator, are you offering that as a choice today?

Senator Bradley. I mean, we had people in here yesterday in housing sector who listed 15 items that they wanted and absolutely refused to make a choice.

Mr. Jones. Senator, are you offering that as a choice?

Senator Bradley. Yes.

Mr. Jones. All right. I would like to address it, then.

As you know, the independent segment of this industry doesn't pay that much windfall profit tax at the current time; so you would not be making an equal trade-off with the independent segment of this industry.

Senator Bradley. But isn't it true, also, that about 85 percent of the oil produced doesn't qualify for the percentage depletion allowance?

Mr. Jones. I am not sure what the percentage is. What is the point there?

Senator Bradley. Mr. DiBona.

Mr. DiBona. Well, the integrated oil companies do not presently get percentage depletion.

You know, there are a lot of other aspects of the Tax Code. So what you have done is single out IDC's and not taken into account the fact that there are other costs associated with drilling for which the period of cost recovery is very long—for example, leasehold acquisition costs, the costs associated with geophysical and geological work for successful wells. When you add all of those up, there isn't any faster rate of recovery than there is for plant and equipment.

Senator Bradley. My only point is, if you have a choice, why not get rid of the thing that is the biggest burden on you, as opposed as trying to keep a small subsidy?

The Chairman. Because the windfall profit tax expires anyway.

Senator Bradley. I was waiting to see if they would answer my question that way, but they chose not to; they chose to say they want it all.

The Chairman. You have that bird in the hand.

Senator Boren.

Senator Boren. No questions.

The Chairman. Senator Baucus.

Senator Baucus. No questions.

The Chairman. Senator Grassley.

Senator Grassley. No questions.

The Chairman. I have no further questions.

Senator Long.

Senator LONG. No questions, Mr. Chairman.

The CHAIRMAN. Gentlemen, thank you very much.

Now let us have a panel of David Gorin, representing the Solar Energy Industries Association; Tina Hobson of the solar lobby; Angus Duncan, vice president of legislative affairs for Flowind Corp.; Eric Vaughn, the president and CEO of Renewable Fuels Association.

I am delighted to have my old friend Angus Duncan with us. I have known him for years, and his father was a well respected member of the House of Representatives and a close friend of mine for many, many years who has now retired to to the Oregon Coast.

Mr. Gorin, why don't you start?

STATEMENT BY DAVID GORIN, EXECUTIVE VICE PRESIDENT, SOLAR ENERGY INDUSTRIES ASSOCIATION, WASHINGTON, DC

Mr. GORIN. Thank you very much, Senator Packwood.

I am David Gorin, the executive vice president of the Solar Energy Industries Association. We are pleased to have been invited here this morning to share our viewpoints with the committee on this important topic. Our association represents the manufacturers of solar heating and cooling equipment photovoltaics, high-temperature solar/thermal power equipment, and the component suppliers to these manufacturers. In addition, our 20 State chapters around the country represent more than 1,500 distributors, retailers, contractors, and installers of solar equipment.

The association has four basic points we believe the Congress ought to consider as it makes decisions on the tax proposals.

First, the energy crisis is not over, and the United States remains as vulnerable as ever to future energy disruptions. The United States is importing increasing amounts of petroleum. Our imports already exceed 30 percent of our use.

From a national security perspective and in terms of the economic health of the United States, this level of imports is too high. Oil imports account for almost half of our national trade deficit. High oil imports coupled with the recent study by the U.S. Geological Survey which concluded that all of U.S. oil reserves are only half of what we originally thought, add up to the fact that the United State remains overly dependent on oil imports.

Second, the United States desperately needs a focused and articulated energy policy which recognizes the necessity for a balanced energy mix that takes into account the various energy sources available today and strives to develop new ones as technology permits. Limited tax incentives have proven a useful tool in furthering domestic energy production.

In 1973, the United States adopted a policy for alternative energy sources which included basic and applied research, national demonstration projects, and market incentives in the form of tax credits. The United States has invested considerable sums of money in renewable energy, and it would be disruptive and shortsighted to give up entirely on a logical and responsible approach to developing these sources.

According to a recent study by the U.S. Department of Energy, we have spent $6 billion on energy incentives for renewables—$4 billion in R&D and $2 billion on tax incentives. And it has resulted in the equivalent savings of $39 billion in barrels of oil. The rewards of this investment will continue for years to come.

The third point we wish to make is that the solar energy industry can deliver significant energy by the year 2000 and immediately beyond. And if the United States discontinues its support of solar at this time, other nations will take over the potential multibillion dollar world market for solar equipment.

The industry is less than 10 years old, with most companies less than 7. New industries developing new technolgies simply take time to develop, and in the case of solar there is an additional burden of trying to compete against conventional energy industries entrenched for generations and enjoying generous subsidies. And changing habits, deeply ingrained in public attitudes and practices, is extraordinarily difficult, as even the giant Coca Cola Co. recently discovered.

Second, the solar industry fought off two attempts by the Treasury Department to retroactively repeal the credits. These two attempts in 1981 and 1982 came on the back of a major recession that seriously hampered the growth of the industry and the utility of the credits.

The U.S. developed its photovoltaics program through our space program in 1980. In that year we held more than 80 percent of the world market in this highly promising product line. Today the United States holds approximately 50 percent of the world market that appears ready to explode. We are losing market share to intense competition from countries where governments strongly support their growing PV industries. It would be ironic for the United States to turn over the potential multibillion dollar PV power market to our industrial competitors in a technology that the United States created.

The fourth and final point we wish to make is in regard to our proposals contained in S. 1201 and the solar provisions of S. 1220. Our position was carefully drawn to present a posture that takes into account the important need for deficit reduction. The proposal phases out all of our credits over a 5-year period ending in 1990.

The loss of the solar tax incentives would mean a dramatic increase in collector prices which have held steady over the past 5 years. A dramatic increase in price would obviously lead to an immediate and dramatic decrease in sales at a time when solar equipment is now being sold through many prominent retail outlets such as Sears Roebuck and Woodward and Lothrop here in Washington. The credits are critical to attracting large numbers of customers and bringing economies of scale to the industry.

Secretary Baker testified before the House Ways and Means Committee in May and was asked why the oil and gas incentives were retained in Treasury II and the solar incentives dropped. He responded that the oil and gas programs deliver more energy and therefore require incentives for national security reasons. However, oil and gas are finite resources and will be totally depleted in the future.

We appreciate Secretary Baker's acknowledgment that energy policy transcends tax policy considerations. Our point is that energy policy should not be selective of one energy source over another.

I urge the committee, on behalf of the thousands of solar businessmen and women across the the country and on behalf of the millions of Americans who stand to benefit from the continued growth and availability of solar devices, to favorably consider the extension of solar tax credits and to allow the solar industry to responsibly phase out the tax incentives that have played such an important role in our early years.

We thank you for this opportunity, Mr. Chairman.

The **Chairman**. Thank you.

Ms. Hobson.

[Mr. Gorin's written testimony follows:]

SEIA

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TESTIMONY

by

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SENATE FINANCE COMMITTEE
WASHINGTON, D.C.

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INTRODUCTION

I would like to thank the Senate Finance Committee for holding hearings on how the Administration's tax plan would effect energy production in the United States. Before I begin, I would like to advise the Committee that the Solar Energy Industries Association, the national trade association representing the solar heating & cooling, solar thermal power, and photovoltaics manufacturers, and component suppliers, wholeheartedly supports S. 1201 which extends and phases out the residential and business solar energy tax credits through 1990. The legislation lowers the current $10,000 expenditure limit on solar hot water systems to $6,000 and requires that solar equipment be certified to be eligible for the tax credit.

The House companion bill to S. 1201, H.R. 1272, has over 140 cosponsors in the House of Representatives including twelve members of the House Ways and Means Committee. The solar industry believes this legislation is the most responsible approach to wean the U.S. solar industry off the existing tax incentives without damaging this new entrepreneurial industry so severely that we cease to become a major force in energy production in the United States. Failure to extend the solar credits as proposed in H.R. 1272, would effectively stifle the U.S. solar industry and hand this nation's technological lead over to Japan and our other industrial competitors.

The following testimony which I submit for the record, outlines the status of the three major solar technologies which are currently marketed to produce heating and cooling for space and water, process heat for manufacturing and electrical production, and electricity for remote, building and utility grade power. Also enclosed for the hearing record, is the study and executive summary developed by Robert R. Nathan and Associates which documents the effectiveness of the existing solar energy tax credits on the federal and state levels, and explains the need for their continuance. I hope the testimony and attached materials provides the Senate Finance Committee with the kind of information that will cause you to extend the incentives as proposed in S. 1201. Thank you.

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PHOTOVOLTAICS

Technology:

Solar photovoltaics (PV) cells are thin, flat semiconductors which convert light energy into direct-current (DC) electricity. A single cell, regardless of size, will deliver a nearly fixed voltage (usually less than one volt); they are usually assembled together in series to provide a practical working voltage. The resulting package is called a module. One or more modules, with appropriate control electronics, support structure, and, in many cases, storage batteries, make up a photovoltaic power system. The small PV systems may power calculators; the largest can deliver enough power to utility grids to supply hundreds of homes.

In principle, solar cells, which have no moving parts, will go on delivering electricy as long as light falls on them. In practice, like most electrical devices, they are subject to chemical and physical attacks and so are enclosed in protective packaging.

Photovoltaic power systems can be designed to provide electrical energy for almost any application. PV modules currently can convert about 10% of the sunlight they receive to electricity, or about 100 watts per square meter at noon on a clear day. A typical industrial solar module four square feet in area would deliver about 50-75 kilowatt-hours per year in a typical location.

State of the Photovoltaics Industry:

The world Photovoltaic (PV) market has increased from less than .5 Megawatts of PV module sales in 1978 to 25 MW in 1985. U.S. shipments were nearly 12 MW. Dollar value in 1984 of PV modules was $175 million and nearly $300 million worth of installed systems. The U.S. world market share has dropped from 90% in 1978 to 47% in 1984. The Japanese have increased their market share from 5% in 1978 to 35% in 1984.

Since 1978 the U.S. DOE PV program budget has fallen from a high of $150 million in 1980 to $40 million in 1985 with a shift from "assisting the industry" to basic long-range, high risk research. The industry has increased its support of PV research product development and engineering from $5 million in 1978 to nearly $85 million per year in 1984. PV module prices at the factory have dropped from $30/Watt in 1978 to $5/Watt in 1985 (1985 dollars).

The industry has shifted from several small private ventures to oil company ownership and dominance. Four companies have closed their doors - Solenergy, Photowatt, Solar Power Corporation and Photon Power. There are presently five producer of PV flat plate modules with several new entrants poised for product sales. Present producers include: ARCO Solar (Atlantic Richfield), Solarex (AMOCO), Solavolt (Motorola-Shell), Solec International (Independent), Mobil Solar (Mobil). Those nearly ready to ship product, or beginning shipments in 1985 include: Chronar Corporation (Independent), Sovonics (ECD-SOHIO), and Westinghouse. There are three companies with PV concentrators: United Energy Corporation, Entech and Intersol (all indepenpendent). In addition, there are 25 or more companies doing research on PV modules and components.

In general the industry is healthy, growing, and investing heavily in the future. Profits do not cover R&D and marketing costs. PV systems are now "fully economic"* when one needs a small amount of reliable electricity remote from the utility grid where the alternative is batteries or small petroleum-powered generators.

In order to be "economic" for U.S. Sunbelt utilities, PV installed prices must decrease from the 1985 level of $9-10/Watt to $2.50-4.00 per Watt or a three-fold reduction. Detailed analysis by the industry, DOE and industry analysts indicate that the R&D initiatives underway have shown technical feasibility to reduce costs by at least a factor of 3. What is needed is a continued expanding market that causes the capital for new automated, high technical risk plants to be built.

Case for Tax Credits:

What has been the impact of the tax credits on PV? The U.S. federal tax credits coupled with California state credits have caused:

- 10-12 MW of central PV stations to be built that would not have been built until 1995 if there were no tax credits.
- Several commercial projects to be built to show PV as reliable, distributed grid-connected option.
- 200-300 small residential systems using the 40% residential credit.

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Nearly 15 MW of PV were installed using the U.S. Investment Tax Credit, at an installed cost of $15/Watt. The total sales stimulated were $225 million. The ITC of 15% cost about $34 million to the Treasury. This $34 million has proven PV to be a reliable central power option that can be installed in 6 months (5-10 MW) and produce power unattended with little or no maintenance.

What will happen to PV if the tax credits are not extended and expanded? Four major events will occur:

- U.S. shipments will drop from 12 MW/year to 6 or 7 MW/year in 1986.
- The Japanese will dominate the world market by 1987.
- The breakeven price point for U.S. central power will not occur until after the year 2000. (Based on Photovoltaic Technology Performance, Cost and Market Forecast to 1995 by PV Energy Systems, Inc., P.O. Box 290, Casanova, VA 22017).

What will happen if the PV tax credits are expanded and extended? The SEIA Photovoltaics Division believes:

- 200 to 300MW of central power stations will be built.
- Prices will drop from $9-10/Watt to $3-4/Watt.
- PV will be "fully economic" in 1991 for Sunbelt diesel electric systems, grid-connected houses, and intermediate and peaking central power in high avoided cost utilities.
- The U.S. will retain its world market leadership.
- World shipments will grow to as high as 2000 MW valued at $6-8 billion stalled.

If solar tax incentives are extended, the United States will have stimulated an economic, renewable, environmentally benign, reliable source of electricity that can serve the needs of remote non-utility persons as well as U.S. grid-connected customers. The total cost to the Treasury will be less than $400 million. This is less than the reduction in the PV R&D budget from 1980 to 1985.

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SOLAR HEATING & COOLING

Technology:

Solar heating and cooling systems are the most familiar solar energy systems known to the American public. They are currently the least expensive solar applications due to the simplicity of their design and installation, and the relatively large volume of production.

The solar heating and cooling segment of the solar industry involves several different kinds of equipment with varying applications. Solar energy can be used to heat water for use in domestic or commercial settings; it can be used to heat water which can then be used, through a system of fans and ducts, for space heating; it can be used to directly heat air which provides space heating and it can be used in various combinations to provide water heating, space heating and cooling.

Active solar systems use pumps to move liquids, either water or a heat transfer fluid, and fans to move air. These are the most common systems available and offer a high degree of reliability.

The passive solar systems take advantage of physical properties to transfer heat. In thermosyphon systems, air, water, glycol, or freon will naturally rise when heated and allow the cooler substances into the collector to be heated. This natural process used primarily to heat water precludes the need for pumps or fans. Thermosyphon systems are becoming increasingly popular in the south and west United States.

Integral collector systems are also gaining popularity as a passive solar-type water heating system. In the ICS system, the storage tank is an integral part of the collector, preheating the water before circulating it to the homeowners regular storage tank until needed. This "batch heater" approach is best suited for warm climates where freezing is highly unusual.

Solar cooling technology has just entered the marketplace which promises to create new markets for the solar industry. This new technology uses a desiccant wheel and solar heat to dry incoming air which significantly lowers air temperature. Solar cooling has just begun to be marketed in the southern states.

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State of Solar Heating & Cooling Industry:

Approximately 200 collector manufacturers form the core of the solar heating and cooling industry. These companies provide a barometer of industry performance. Material and component suppliers upstream and the distribution and installation businesses downstream form the whole industry. SEIA estimates that over 6,000 businesses are involved in the retail sale and installation of solar equipment and over 30,000 or more are indirectly employed in the supplier and component roles.

Gross sales of solar heating and cooling equipment exceeded $700 million in 1984. And we estimate that there are more than 400,000 solar installations throughout the U.S.

Very conservative industry projections foresee a 10% annual growth rate if the tax credits are extended on the proposed phase out schedule. This conservative projection would indicate a $1.1 billion dollar industry from just this segment of the solar industry by 1990. And in the event of another energy price increase during the next five years, these figures could increase dramatically.

With an additional five years of tax credits on a decreasing basis, SEIA believes that the industry will be very capable of standing on its own at the end of that period without tax incentives. There will be substantially improved public acceptance of solar energy as an alternative due, if for no other reason, to another five year period of its existance. Public acceptance takes time to develop and habits ingrained in the American public over many years take time to change.

During the next five years we project that utility costs and the prices paid by consumers for energy will continue to increase as they have in each recent year. We saw no reason why those costs and prices would stablize at any point in the future and therefore the competitiveness of solar will continue to improve to the point where we see parity approaching in the next five years. The Solar Energy Industry Association certainly forsees a sharp increase in the industry's overall competitive strength based on our longevity in the marketplace where the heating and cooling technologies have not yet made significant inroads. The competive strength of the industry will be vastly improved in five years which will further enable us to stand unsupported.

Finally, with an additional five years of a healthy, growing market, manufacturers will have the opportunity to improve their marketing and manufacturing efficiencies to further refine and sell their products. This is particularly important in the space heating segment since it is the most rapidly growing sector where improvement in product and manufacturing will be felt the most. Already this is evidenced by the sales of solar systems through national retail chains during the past two years such as Sears & Roebuck and Woodward & Lothrop.

In a recent study conducted by economist Robert Nathan, it was shown that the payback on an investment in solar ranged between 6 and 12 years depending on the cost of competitive energy, the rate of the federal tax credit, the location of the systems and future energy price projections. The majority of the scenarios considered show the payback falling within a 6 to 10 year period. These scenarios did not consider state tax incentives and were based on the national averages of energy requirements for water heating for a family of four and national averages concerning the cost and operating characteristics of a solar hot water system.

Case for Tax Credits:

To illustrate exactly how the credits play in the purchasing decision of consumers, SEIA recently conducted a series of interviews and case studies to illustrate the point. A series of these studies is being submitted to the Committee for the record, but it is helpful here to briefly comment on two of those case studies.

The Fisher's of Windsor Locks, CT. purchased a solar powered hot water system for a total of $3039 in 1981. Prior to purchasing the system, their oil consumption for three previous years had averaged 1600 gallons per year. Following the installation of several energy saving measures, the Fisher's cut their use to about 900 gallons. And then installed the solar system which further cut their use to less than 400 gallons! The system has saved 32% of their previous oil consumption and at an average cost of $1.10 per gallon of oil, the Fishers' annual savings amounts to more than $40 per month which works out to a payback period AFTER TAX CREDITS of approximately 4 years in comparison to a payback without the credits of more than 7 years.... a powerful difference which the Fisher's claim was a major factor in their decision.

In addition, before buying the solar water heater, the Fishers' explored other investment opportunities. Instead of spending $1023 on solar, the cost to them after the credits, they could have invested their funds to earn 9% interest. The opportunity cost was large enough as a result of the tax credit to convince the Fisher's to purchase their system.

Gary and Alether Osborn own a 1760 square foot home in Thornton, Colorado. Their solar system heats space and water and saves more than $460 a year in gas costs thus paying back in about 8 years. This particular system has a twenty year guarantee on the heat transfer loop and the seller provides lifetime maintenance, two factors which give the Osborn's a high degree of confidence that the savings they now get in sharply reduced gas costs will continue well into the future.

Without a gradual weaning of the industry from this tax credit support in the residential portion of the industry as proposed in H.R. 1272 and as part of H.R. 2001, the solar industry will be severely damaged for many years to come.

An immediate cessation of the 40% credit will be a trauma that few industries could survive unrcathed. It is the equivelant of 40% price increase overnight. It is expected that sales will drop drastically with the effect of severely curtailing manufacturing operations with the attendant layoffs of hundreds of employees, and the closing of hundreds of solar sales offices. The sunsetting of the credit in such a drastic fashion will do irreparable harm to the marketing infrastructure which will take great effort to maintain in a reduced market and will be extemely difficult to re-create in the years ahead.

No doubt the industry will rebuild itself over a period of years into the future. But what happens should there be an energy shock to the nation? Does it make sense to abruptly throw the industry into turmoil and uncertainty when the cost of maintaining it and phasing out the tax support systematically is so inexpensive? Does it make sense to jeopordize the hardwork of a large group of enterpreneurship which is so prized today for the sake of a cliche called tax simplification? Does it make sense to set back an industry which can contribute significantly to energy development at such a reasonable cost when this country is importing nearly 30 percent of its oil amounting to almost half of our total U.S. trade deficit?

SEIA urges the extension and systematic phase out of the tax credits for renewable energy as a way of transitioning this industry into a freer market. We urge the Congress to take similar measures with regard to all energy sources so that in five years we will have achieved the goal of a freer market in energy, a sharply reduced federal deficit and a more equitable and balanced energy future.

SOLAR THERMAL POWER

Technology:

Solar thermal technologies include a device that turns sunlight into useful heat. There are a number of technology variations, but all involve a collector which gathers light, a receiver which converts light into heat, and a heat exchanger which transfers and carries the heat to where it is needed. The amount of solar energy which is available for a process - whether thatis for electric generation or industrial process heat - is a function of the location of the facility and the amount of area you have for collection.

The maximum practical temperature of the available from solar conversion depends upon the concentration ratio at the locus of conversion. Non-concentration systems, where the solar collector is also the onverter (a regular flat-plate collector) operate at low temperatures, typically less than 200 degrees Farenheit. High temperature solar energy systems can operate at temperatures up to 600 degrees Farenheit High temperature solar energy systems which focus sunlight in two demensions can operate at extreme high temperatures of over 2000 Farenheit.

Parabolic trough collectors have entered the commercial market for both industrial process heat and electric generation. The central receiver (power tower) technology is being demonstrated near Bartsow, California in a ten megawatt system. Small parabolic dish technology is being demonstrated in a cogeneration application (electricity and process heat generation) in Shennandoah, Georgia. Large parabolic dish technology and tghe hemispherical bowl concentrators are both in the testing and prototype stages. Southern California Edison contracted in 1984 for a parabolic trough solar steam plant to provide 13.5 megawatts of electricity.

SOLAR ENERGY INDUSTRIES ASSOCIATION

SOLAR THERMAL POWER

State of Solar Thermal Power Industry:

Solar thermal power industry consists of more than 30 member companies - five Fortune 500 corporations, several utilities, and more than two dozen small companies. Solar thermal power uses high-temperature (more than 300 degrees F renheit) to generate steam and apply this steam energy to industrial process applications or use it to generate electricity by means of steam turbines or other types of engines. These industries employ high-temperature, high-technology, solar concentrating collectors, high flux receivers, energy process flow control, and prime mover machinery, to produce energy.

Some companies have fielded a few significant solar installations, thanks to the combination of federal and state energy tax credits. However, for the most part, companies' activities are devoted to product improvement through better component efficiencies and lower cost so as to achieve an end product that will be competitive without tax credits in the open market. The Solar Thermal Power industry believes it is imperative for the solar energy tax credit to be extended in a 5-year phaseout plan as prescribed in H.R. 1272 and S.1201.

Case for Tax Credits:

Conventional energy sources receive more than $3.5 billion of tax incentives annually according to the Joint Committee on Taxation. These incentives are for oil, gas, coal, and nuclear, and gives these nonrenewable resources a great competitive advantage over renewable solar energy resources. Current tax policy is promoting a short-term solution to a long-term problem, without even accounting for the environmental and consumer costs of pursuing this path. Acid rain, hazardous waste disposal, and global warming of the atmosphere from carbon dioxide buildup are real factors that we don't assign a dollar value to, but for which indeed we are paying the price.

The solar thermal power industry together with the National DOE Laboratories, have made great progress in the last decade. Installed system costs in terms of dollars per Kw for electrical generating stations have decreased by a factor of more than three. For example, LUZ Engineering Co., one of our member companies, is generating electricity with SEGS I, a 14.7-Mw plant, at a cost of $4,500 per Kw. SEGS II, a 33-Mw plant, to be completed later this year, will produce power at $3,100 per installed Kw*. As good as these numbers sound, they are still not competitive, sans tax credits, with conventional fuels especially when one realizes the costs for solar are for peak watts, not all day long watts.

Without the solar energy tax credit extension, or another "level playing field" energy equivalent, most of our member companies will face drastic consequences - the large Fortune 500 companies will survive, but the small entr preneurial companies, the very ones that President Reagan praise in his recent speech, for the most part will be forced out of the solar business. This climate is further exacerbated by the DOE solar budget dropping in the last five years from over $750 million to less than $200 million. The DOE solar thermal budget was at $35.2 million in FY 85 and DOE's FY 86 request is $28.4 million. In contrast the DOE civilian nuclear budget increased from $1.704 billion in FY 85 to $1.813 billion FY 86 request.

On the other hand, if we get "level playing field" policy, then the solar industry can blossom, expand, and contribute greatly to the following key national and global issues:

- Decrease dependency on imported oil with its negative trade balance.
- Improve our environment with non-polluting solar energy (less smog, carbon dioxide, and other wastes).
- Create new jobs - solar energy is labor intensive.
- Allow utilities to build plants in modular form and quickly (not 8 to 15 years for some coal and nuclear plants). LUZ Engineering Co., is installing a 30 Mw electric power plant in less than a year.
- Create exports and help our trade balance - most developing nations are in great need for non-polluting solar energy, and a healthy U. S. solar industry will generate many affordable export products.

It is important to remember that our earth, a satellite of the sun, is warmed immensely by the sun's energy and it stores this energy well through every night. Even on a cold winter night with a freezing outdoor temperature and an indoor room temperature of 70 degree Farenheit, 93% of the room's warmth comes from the sun. Outer space is -460 degrees Farenheit. It has been calculated that the amount of solar energy that reaches the earth's surface every two weeks is equivalent to all of the known reserves of coal, gas, and oil. Tornados, hurricanes, massive floods, are destructive forms of the sun's energy. The power of the sun is awesome - so let's use it for the good of mankind.

All energy options should compete on a "level playing field." We note, however, that under "Treasury Two," the depletion allowance and intangible expensing for oil and gas is allowed to continue for five more years for most wells. Congress and the Administration should establish an equitable phaseout of ALL federal energy tax subsidies. At the very least, solar energy credits should be phased out on the same schedule as the benefits for oil and gas.

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* Engineering News Report, May 30, 1995, p. 15.

STATEMENT BY TINA HOBSON, EXECUTIVE DIRECTOR, SOLAR LOBBY AND THE CENTER FOR RENEWABLE RESOURCES, WASHINGTON, DC, ACCOMPANIED BY W.C. HOLMBERG, LEGISLATIVE DIRECTOR, SOLAR LOBBY

Ms. HOBSON. Mr. Chairman, I would like to introduce my colleague Mr. Bill Holmberg, who is our legislative director. I am executive director of the Solar Lobby. I previously served as the director of the Office of Consumer Affairs and as a senior executive with the Office of Conservation and Renewable Energy at the Department of Energy.

The Solar Lobby is a national nonprofit membership organization with more than 25,000 active individual members and a large informational network of cooperating State and local groups. We are not a trade association. In fact, we receive less than 10 percent of our budget from the industries. Rather, we represent the consumer directly in furthering all the solar or renewable energy technologies and conservation.

We appreciate the opportunity to present our views. My testimony reflects the position of more than 100 national, State, and local environmental and public interest organizations that have endorsed Senate bill 1220 and includes a joint statement of 10 environmental, consumer, and public-interest organizations on the President's tax reform proposal. I would like to submit for the record the joint statement and the list of organizations endorsing S. 1220. This bill was introduced on May 23 by Senator Mark Hatfield and Senator Spark Matsunaga.

Some of the large organizations include the Consumer Federation of America, the National Farmers Organization, the National Audubon Society, the Sierra Club, and the American Association of Retired Persons.

The Solar Lobby supports a balanced energy future that protects the environment, reduces dependence on imported oil, creates jobs, and enhances national security. These goals can best be pursued not by perpetuating tax incentives that skew pricing structures, but rather by the application of free market forces at the individual, corporate, and community levels in response to local energy conditions.

I am sorry Senator Bradley isn't here; I did want to surprise him by saying that we supported no tax credits for anyone. The Solar Lobby supported Treasury I. That is exactly why we do not support the energy provisions of Treasury II. These provisions would put renewable energy technologies at a significant disadvantage. We believe that energy tax incentives for all the energy technologies should be equitably adjusted to enhance competition and then phased out on a schedule that is both prudent and fair.

For purposes of clarification, renewable energy, as defined by the Solar Lobby and the Department of Energy includes solar/thermal, photovoltaics, wind, hydropower, biomass, including ethanol, geothermal and ocean thermal energy. We also support energy efficiency or conservation.

The renewable energy technologies have earned their place at the table with conventional energy groups. Renewable energy now provides almost 10 percent of the primary energy needs of this country—more than twice the amount provided by nuclear power. With equitable Federal treatment, that renewable energy contribution should reach 20 percent or more by the year 2000.

Renewable energy sources have made this contribution with about $1 billion in annual tax expenditures, as compared to about $27 billion for the conventional energy industries.

Senator Hatfield's bill and Senator Matsunaga's bill S. 1220 would extend the tax credits for all the renewable energy technologies on a technology-by-technology basis over several years, substantially reducing costs from the current legislation through a variety of phase downs and other measures. I have a chart I would like to submit for the record on this.

[The chart follows:]

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RENEWABLE ENERGY AND CONSERVATION TRANSITION ACT: PROPOSED LEGISLATION
U.S. SENATE 1985--COMPARISON OF S. 1220 and S. 1201

CATEGORY	SEN. MARK HATFIELD (S. 1220)**	SEN. PAULA HAWKINS (S. 1201)
Solar Thermal (low and high-temperature) & Photovoltaics	Five-year extension for both residential (phase down for solar thermal) and business energy tax credits. An add'l. 3-yr.commitment would extend bus. high-temperature solar & PV's through 1993. (Reverse side for details) Estimated cost: $975 M over 5 yrs.	SAME PROVISIONS AS S. 1220
Biomass (including ethanol, wood gasification, direct combustion & anaerobic digestion)	Three-year extension and phase down for business applications only. Estimated cost: $150 M over 3 yrs.	NO PROVISIONS
Windpower	Three-year extension and phase down for business and residential applications. Estimated cost: $190 M over 3 yrs.	NO PROVISIONS
Geothermal Energy (incl. hybrid systems & groundwater heat pumps)	Three-year extension for both residential (phase down) and business applications. Estimated cost: $175 M over 3 yrs.	NO PROVISIONS
Hydropower	Tax-credits not extended, but affirmative commitments extended for two yrs. for projects initiated prior to the end of 1985. Estimated cost: $110 M over 2 yrs.	NO PROVISIONS
Ocean Thermal Energy	Five-year extension for business applications only. Estimated cost: (no add. costs over current provisions for $60 M)	NO PROVISIONS
Conservation	Three-year extension with provisions to benefit low and middle income citizens (income limit). Estimated cost: $600 M over 3 yrs.	NO PROVISIONS

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* S. 1220 is identical to H.R.2001 introduced by Rep. Cec Heftel and S. 1201 is identical to H.R. 1272 introduced by Wyche Fowler.

** Current Total estimated cost for S. 1220 is $2.25 billion, about $2 billion less than the current law over a comparable period of five years.

RENEWABLE ENERGY AND CONSERVATION TRANSITION ACT OF 1985

** BUSINESS CREDITS **

Technology	Current Law 1985	Proposed Extension 1986	1987	1988	1989	1990
SOLAR						
Low-temp. (below 300°F)	15%	15%	15%	15%	15%	10%
High-temp. (above 300°F)	15%	25%	25%	25%	20%	20%
Photovoltaics	15%	25%	25%	25%	20%	20%
WIND	15%	10%	10%	5%	0%	0%
GEOTHERMAL	15%	15%	15%	15%	AC	AC
OCEAN THERMAL ENERGY CONVERSION (OTEC)	15%	15%	15%	15%	15%	10%
HYDROPOWER *	11%	AC	AC	AC	AC	AC
BIOMASS	10%	10%	10%	5%	0%	0%

* = Current law provides affirmative commitments for hydropower projects through 1988

Note: AC = Affirmative commitments at previous years level.

** RESIDENTIAL CREDITS **

Technology	Current Law 1985	Proposed Extension 1986	1987	1988	1989	1990
	% credit (maximum expenditure)	% credit (maximum expenditure)				
SOLAR						
Heating & cooling	40% ($10,000)	35% ($4,000) *	30% ($4,000) *	25% ($4,000) *	20% ($4,000) *	15% ($4,000) *
Photovoltaics	40% ($10,000)	40% ($10,000)	40% ($10,000)	40% ($10,000)	40% ($10,000)	40% ($10,000)
WIND	40% ($10,000)	25% ($20,000)	20% ($20,000)	15% ($20,000)	0%	0%
GEOTHERMAL	40% ($10,000)	40% ($10,000)	30% ($10,000)	20% ($10,000)	0%	0%
CONSERVATION	15% ($2,000)	25% ($700)	25% ($700)	25% ($700)	0%	0%

Note: Proposed conservation credit could be claimed only by households with income of $30,000 or less. Current law has no income ceiling.

* = ($4,000) expenditure limitation applies only to domestic hot water (DHW) systems. Other heating and cooling applications retain $10,000 maximum expenditure limit.

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Ms. HOBSON. Seven years ago the United States was reeling under the second energy shock. Congress and the administration lost a significant investment in the renewable energy technologies. There were problems getting off the ground with consumer education, faults in some of the new technologies, reluctance from the financial community, and an effort on the part of the administration to rescind tax credits in 1981. It even took a Supreme Court decision in 1983 to open the market to independent electric power producers.

Despite these hurdles and the wandering attention of public officials as oil prices declined, the accomplishments have been most impressive. We now have a major advance in a wide range of solar systems; after only 4 years of significant development, wind machines are rapidly becoming one of the least-cost methods of producing electricity. We have wood fuels. We have revolutions in almost any renewable technology.

Before the lights go off, I do want to request that you accept for the record written testimony on tax reform and tax credits from three sectors of the biomass community, industries that are not represented today.

The CHAIRMAN. It will follow your testimony.

Ms. HOBSON. Thank you. All right, one on the issue of wood energy and electric power production, another focused on commercial wood energy and thermal uses of wood, and the third on anaerobic digestion and renewable biogas from organic and municipal waste.

New advances in hydropower now permit small units to blend into a number of rivers and streams with minimal environmental disturbances.

Mr. Chairman, these technologies are becoming an increasingly important part of America's mix, and we want and hope to have your commitment.

The CHAIRMAN. Thank you.

Mr. Duncan.

[Ms. Hobson's written testimony, the joint statement, the list of organizations joining the Solar Lobby in endorsing S. 1220, and written testimony on tax reform and tax credits from three sectors of the biomass community follow:]

Solar Lobby
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Denis Hayes
Chairman

TESTIMONY OF TINA C. HOBSON

SUBMITTED TO THE

FINANCE COMMITTEE

U.S. SENATE

July 17, 1985

Mr. Chairman, my name is Tina Hobson, Executive Director of the Solar Lobby. I previously served as the Director of the Office of Consumer Affairs and as a Senior Executive with the Office of Conservation and Renewable Energy at the Department of Energy. The Solar Lobby is a national nonprofit membership organization with more than 25,000 active individual members and a large informational network of cooperating state and local groups. We are not a trade association but rather represent the consumer directly in furthering all the "solar" or renewable energy technologies and conservation. We appreciate the opportunity to present our views.

My testimony reflects the position of more than 100 national, state, and local organizations that have endorsed S. 1220 and a May 30 joint statement of ten environmental, consumer, and public interest organizations on the President's tax reform proposal. I would like to submit for the record the joint statement and the list of organizations endorsing S. 1220. This bill was introduced on May 23 by Sen. Mark Hatfield, Sen. Spark Matsunaga, and a number of colleagues. Cosponsors include Senators Alan Cranston, Alan Dixon, Christoper J. Dodd, James Exon, Gary Hart, Tom Harkin, Paula Hawkins, Chic Hecht, Howell Heflin, Edward Kennedy, John Kerry, Carl Levin, Paul Sarbanes, Lowell Weicker and Claiborne Pell.

Mr. Chairman, the United States cannot be assured of a secure energy future unless we proceed wisely, with the understanding that tax decisions will in fact be setting energy policy for generations to come.

The Solar Lobby supports a balanced energy future that protects the environment, reduces dependence on imported oil, creates jobs, and enhances national security. These goals can best be pursued not by perpetuating tax incentives that skew pricing structures, but rather by the application of free market forces at the individual, corporate, and community levels in response to local energy conditions.

Mr. Chairman, that is why the Solar Lobby, environmental, and public interest groups supported Treasury One. That is exactly why we do not support the energy provisions of Treasury Two. These provisions would put renewable energy technologies at a significant disadvantage. We believe that energy tax incentives for all the energy technologies should be equitably adjusted to enhance competition, and then phased out on a schedule that is both prudent and fair. For purposes of clarification, energy technologies in general include: oil, gas, coal, nuclear, electric utilities, synfuels, conservation, and renewable energy. Renewable energy includes solar thermal, photovoltaics, wind, hydropower, biomass including ethanol, geothermal, and ocean thermal energy.

The renewable energy technologies have earned their place at the table with conventional energy groups. For example:

- Renewable energy now provides almost 10% of the primary energy needs of the country--more than twice the amount provided by nuclear--according to a new report by the Center for Renewable Resources, educational affiliate of the Solar Lobby. With equitable federal treatment, that renewable energy contribution could reach 20% by the year 2000.

- Renewable energy sources have made this contribution with about $1 billion in annual tax expenditures, as compared to about $27 billion for the conventional energy industries, according to the Environmental Action Foundation.

- From 1980 to 1984, renewable energy technologies received 4,470 megawatts of new orders for electricity. During the same period, nuclear and coal witnessed a net cancellation of more than 65,000 megawatts. This is the marketplace talking, but the Administration is not listening. Instead, Treasury Two proposes to take action that will seriously disadvantage the renewable energy industries, most of which are small businesses, while continuing to advantage the electric utilities.

- In the past decade, the United States has spent more than $550 billion for imported energy--$60 billion in 1984 alone. This monetary hemorrhage is adding seriously to the federal deficit and must be stopped. Renewable energy technologies will certainly help stop it.

- Expanded use of renewable energy technologies will generally benefit the environment, particularly in terms of reducing acid rain and carbon dioxide buildup and limiting other water and air pollutants.

- Finally, Mr. Chairman, renewable energy's greatest contribution is in the area of national security. These technologies meet all of the key national security tests. They are decentralized and less vulnerable in the event of a major disaster than conventional technologies. They are abundant domestic resources, freeing us from more dependence on foreign sources. They are nondepletable and thus are much preferable to fossil reserves that can be used up with resulting jeopardy to national security. Moreover, the proliferation of renewable energy technologies--hopefully through U.S. sales--will help reduce the world's dependence on Middle East and Communist block oil. The Administration, however, clings to the national security argument to justify extending tax credits for oil and gas and then changes its logic to continue opposition to renewable energy credits.

Under Treasury Two, the Administration would restore major tax privileges for oil companies and other nonrenewable energy industries while renewables and conservation would lose their most significant tax benefits. At a Solar Lobby press conference on Capitol Hill on May 30, the Lobby and nine other groups issued the joint statement calling this action "unfair and unwise. It jeopardizes our most cost-effective means to energy security and it hurts the very kind of entrepreneurs whom the President has rhetorically praised--the small businesses that are developing renewable energy technologies."

Mr. Chairman, as you know, Treasury Two would restore most of the oil and gas benefits that Treasury One would have removed. Among the most inequitable of these loopholes is expensing of intangible drilling costs. Under the new plan, according to the Treasury Department, "in 1986, 31,000 people with adjusted gross incomes over $100,000 . . . would receive an average benefit of approximately $28,000." Meanwhile, the moderate-income homeowners who want to insulate their homes or install efficient furnaces or solar water heaters would lose their benefits.

The public interest group statement from the press conference notes that while Treasury One would have eliminated all depreciation benefits, the depreciation provisions of Treasury Two would be even more generous to electric utilities than existing depreciation provisions. Moreover, renewable energy facilities would lose half their depreciation benefits, in addition to losing the renewable energy tax credit.

Renewables are now in the five-year depreciation category. Under Treasury Two, they would be put in a ten-year category, giving them smaller writeoffs. Meanwhile, coal-fired plants would be moved from a fifteen-year period down to a ten-year period, increasing their writeoffs. Nuclear plants would remain in a ten-year category; by contrast, Treasury One would have put all power plants into a thirty-eight year category. Environmental Action Foundation calculates that the depreciation changes for coal and nuclear plants would mean an added cost to the Treasury of $3.5 billion a year as compared to Treasury One. The cost of this change over just a five-year period ($17.5 billion) would thus be 8 times greater than the total cost of S. 1220 over its five-year lifetime. Under Treasury Two, the percentage depletion allowance for oil and gas would be phased out over five years for most wells. We call on Congress and the Administration to establish an equitable phaseout of all federal tax subsidies. At the very least renewable and conservation tax credits should be phased out on the same schedule as benefits for oil and gas.

With the advantages of renewable energy and the disadvantages of Treasury Two already outlined, the questions that now logically flow are three:

Q: Considering all of the advances of renewable energy technologies, why are tax credits for them needed?

A: Under Treasury One conditions, the renewable technologies could fight it out in the marketplace—many would survive, some would not. But Treasury Two's bias toward oil, gas, and the utilities skews the marketplace again. The Department of Energy subsidies automatically give an advantage to nuclear power. Our team is in trouble. We need fair treatment in the tax code.

Q: Why doesn't the Administration support conservation and renewable energy?

A: I refer to the contents of the DOE/EIA Monthly Energy Review. With the exception of hydropower (which periodically rates a column of figures in the review), conservation and the renewable energy technologies are mentioned only superficially or as mere footnotes. It is entirely possible that the President of the United States and some senior cabinet officials do not know

that renewable energy provides **the** nation with twice as much primary energy as **does nuclear power** and at a fraction of the federal subsidies that nuclear **enjoys. Nor have they probably been told** about the promising technological **advances** in the **renewable** energy **industries.**

Another reason for lack of full support for the renewable energy industries lays at the feet of the industries themselves. As with all **decentralized industries, some** hucksters **and the tax** credit peddlers have **appeared. Because of the general enthusiasm for the** promise of renewables, **some of these promoters initially slipped right by** to **do** great damage to **the reputations of the** overwhelmingly **honest sectors of** renewable energy **industries. Recently, the industries** have taken important steps in developing **effective standards and oversight.** In **addition, as a consumer** organization, the **Solar** Lobby would **welcome** the opportunity to work with both the industry and the **Congress** to **increase** consumer protections and consumer satisfaction in the **quality, reliability and safety of** consumer products. We don't believe that the majority of **renewable industries** should be discounted **because** of the **transgressions of a small** minority. **These** transgressions **are peanuts** compared to **those of some** major **international energy** corporations. Neither the Teapot **Dome scandal** of the oil **industry** or **the** more **recent** tens of billions in oil **overcharges** and nuclear plant cost **overruns** brought **these** industries en masse to **the bench for federal execution. When dealing** with renewable industries, **these fast-changing** and flexible **community** based energy technologies, we need to **be** careful not to **throw the baby** out with the bath water.

Q: What is the recommended solution?

A: Accept the renewable energy technologies as maturing, valuable industries with a promising future. Treat us fairly in comparison with other energy technologies. In the interest of a fair and affordable energy policy, the Solar Lobby and the nation's other major environmental and consumer organizations have no choice but to stand solidly behind extension of the renewable energy and conservation tax credits as outlined in S. 1220. As you can see from the attached list of more than 100 endorsing organizations, they range from large national groups such as the Consumer Federation of America, National Farmers Organization, National Audubon Society, Sierra Club, and American Association of Retired Persons to a variety of regional and state organizations.

S. 1220 would extend the tax credits for all the renewable energy technologies on a technology-by-technology basis over several years, substantially reducing costs from the current legislation through a variety of phasedowns and other measures.

S. 1220 also includes extension of the residential energy conservation tax credit. This credit, which is claimed by 3 million families annually, helps them improve the energy efficiency of their homes by encouraging them to install insulation, storm windows, furnace improvements, and other energy-saving measures. Energy conservation is the least-cost energy source available; cumulative energy efficiency improvements already satisfy 23% of our energy needs and could supply significantly more. Conservation is particularly helpful in the residential sector where most housing was built long before the higher standards of the post-embargo period. The credits are especially popular in the states with colder weather and older housing in need of energy conservation improvements. More important, the energy conservation credit is used most by those in greatest need; according to the IRS, half the claimants earn $30,000 annually or less. S. 1220 would increase the energy savings from the credit while lowering the cost the federal Treasury. S. 1220 would impose a $30,000 annual income ceiling on the conservation credit and lower the total allowable credit from $300 to $175. The Northeast-Midwest

Institute has estimated that these and other proposed reforms will save $200 million over the life of the extension from current law while saving 50% more energy.

Mr. Chairman, S. 1220 provides the scheduling concept for the phaseout of tax credits for renewable energy and conservation. We suggest a similar and equitable phaseout for the other energy technologies.

Seven years ago, the United States made a significant investment in the renewable energy technologies. There were problems getting off the ground with consumer education, faults in some of the new technologies, reluctance from the financial community, and an effort on the part of the Administration to rescind tax credits in 1981. It took a Supreme Court decision in 1983 to open the market to independent electric power producers.

Despite these hurdles, the accomplishments have been most impressive. We now have major advances in a wide range of solar systems. After only four years of major development, wind machines are rapidly becoming one of the least-cost methods of producing electricity in some parts of the country. The United States has the second biggest fuel ethanol industry in the world, an industry that is paving the way for other fuel alternatives. The wood fuel industry has passed through a revolutionary stage to where it now leads oil, gas, and coal as a preferred fuel in certain sections of the country. New advances in hydropower now permit small units to blend into a number of rivers and streams with minimal environmental disturbances. Geothermal and groundwater heating and cooling systems are becoming increasingly routine; and ocean thermal technology holds real promise for the future.

Mr. Chairman, these technologies are becoming an increasingly important part of America's energy mix. In many areas, we lead the world. This is not the time to abandon our commitment to a renewable and sustainable energy future. Thank you for your consideration.

JOINT STATEMENT ON ADMINISTRATION TAX PLAN

U.S. Capitol, Washington, D.C.
May 30, 1985

Today we join together on behalf of 10 national environmental and consumer organizations in a united appeal to reform our nation's energy tax policy to create a "level playing field" for all energy investments. While Treasury Two is a clear improvement over the status quo, it is a significant retreat from Treasury One, which moved toward a level playing field by removing all tax subsidies for energy. Unfortunately, the Administration's new plan falls far short of this goal.

Oil companies and other nonrenewable energy industries have had major tax privileges restored under Treasury Two, while renewables and energy conservation have lost their most significant tax benefits. This is unfair and unwise. It jeopardizes our most cost-effective means to energy security and it hurts the very kind of entrepreneurs whom the President has rhetorically praised--the small businesses that are developing innovative renewable energy technologies.

Our nation now spends more than $27 billion annually on tax breaks to the energy industries. Almost all of these expenditures are for oil, gas, coal and nuclear, giving these nonrenewable resources a great competitive advantage over energy efficiency and renewable energy resources. Current tax policy is promoting a short-term solution to a long-term problem, without even accounting for the environmental and consumer costs of pursuing this path.

While Treasury One would have eliminated all depreciation benefits, Treasury Two would be even more generous to electric utilities than existing depreciation provisions. By contrast, renewable energy facilities would lose half their depreciation benefits, in addition to losing the renewable tax credit.

In the interest of a fair and affordable energy policy, we have no choice but to stand solidly behind extension of the tax credits for energy conservation and renewables. Legislation introduced in Congress has been structured to phase out the renewable energy and conservation credits on a technology-by-technology basis over three to five years. The renewable energy industry is prepared to adjust its research and development plans and its marketing strategies to accommodate this schedule. We strongly support this approach, which has been incorporated into H.R. 2001, sponsored by Rep. Cec Heftel and more than one hundred colleagues, and S. 1220, just introduced by Senator Mark Hatfield. These bills have been endorsed by one hundred renewable energy, environmental and public interest organizations.

Under Treasury Two, the percentage depletion allowance for oil and gas is also being phased out over five years for most wells. We call on Congress and the Administration to establish an equitable phaseout of all federal energy tax subsidies. At the very least renewable and conservation credits should be phased out on the same schedule as benefits for oil and gas.

(continued)

Currently renewable energy sources supply almost 10 percent of U.S. energy and could easily supply more than 20 percent by the year 2000 if not impeded by government obstacles such as tax inequities. Similarly, cumulative energy efficiency improvements already supply 23% of our energy needs and could supply significantly more. Without a level playing field, special tax incentives are an essential ingredient for achieving these potentials.

Energy consumption and the volume of oil imports are again on the rise, worsening a monetary hemorrhage that is a major contributor to the federal deficit. The United States has expended about $500 billion for imported energy over the past decade and more than $52 billion in 1984 alone. Energy independence, called for by the President, cannot be realized if we rely so heavily on domestic oil production. Our nation has less known conventional oil with each passing day. We need incentives to use less oil, not to drill the oil we have at faster rates. Treasury Two takes us in the wrong direction, by encouraging drilling and discouraging conservation and renewables.

In addition, by restoring tax breaks for utilities to build new power plants and cutting benefits for conservation and renewables, Treasury Two would create a situation that would lead to large tax expenditures for new power plants in the future. The energy scenario projected by the Department of Energy would entail capital investments of $1 trillion in 1982 dollars and would cost around $167 billion in federal tax expenditures under Treasury Two.

Only by allowing the marketplace to determine energy investments will the United States achieve cost-effective energy security and a strong economy. We call upon the Administration and Congress to adopt an equitable and fair energy policy by phasing out all energy subsidies across the board and supporting the phaseout model in H.R. 2001 and S. 1220.

Citizen/Labor Energy Coalition

Environmental Action

Friends of the Earth

Natural Resources Defense Council

Sierra Club

Consumer Federation of America

Environmental Policy Institute

National Audubon Society

Public Citizen

Solar Lobby

ORGANIZATIONS ENDORSING H.R. 2001/ S. 1220

NATIONAL ORGANIZATIONS

American Agriculture Movement
(David Senter)

American Association of Retired Persons (AARP) (David Certner)

American Solar Energy Association
(Susan Burby)

American Wind Energy Association
(Tom Gray)

Americans for Indian Opportunity
(LaDonna Harris)

Bio-Energy Council (Paul Benke)

Citizen/Labor Energy Coalition
(Robert Brandon)

Citizens' Energy Project (Ken Bossong)

Consumer Federation of America
(Steve Brobeck)

Environmental Action (Ruth Caplan)

Environmental Policy Institute
(Norris McDonald)

Environmentalists for Full Employment
(Richard Grossman)

Friends of the Earth (Geoff Webb)

Fund for Secure Energy (Tom Kinder)

Independent Energy Producers' Association (Jan Hamrin)

Industrial Fabrics Association International (Marcia Thomson)

Infinite Energy (Rebecca Vories)

Institute for Local Self-Reliance
(David Morris)

Izaak Walton League of America
(Maitland Sharpe)

Jobs in Energy
(Margaret Morgan Hubbard)

National Association of Retired Federal Employees (Edward Chodos)

National Association of Solar Contractors (John Woyke)

National Audubon Society
(Dr. Jan Beyea)

National Conference of State Legislatures (Sharon Waxman)

National Center for Appropriate Technology (Peggy Wheeler)

National Farmers Organization
(DeVon Woodland)

National Hydropower Association
(Lee Goodwin)

National Parks & Conservation Association (Destry Jarvis)

National Wood Energy Association
(David Keenan)

Natural Resources Defense Council
(Laura King)

NETWORK, a Catholic Social Justice Lobby (Nancy Sylvester, IHM)

Nuclear Information Resource Service
(Janet Lowenthal)

Organizing Media Project
(Chris Bedford)

Pax Christi (Sister Mary Lou Kownacki)

Public Citizen (Paul Markowitz)

Renewable Fuels Association
(Eric Vaughn)

Rural Coalition (Lawrence Parachini)

(Continued)

Sheet Metal & Air Conditioning Contractors National Association (SMACNA) (Stan Colby)

Sheet Metal Workers International Association (Ralph Wilhem)

Sierra Club (Brooks Yeager)

Solar Energy Industries Association (Scott Sklar)

Solar Lobby (Tina Hobson)

SolarVision, Inc. (Bruce Anderson)

Union of Concerned Scientists (James MacKenzie)

REGIONAL/STATE/LOCAL ORGANIZATIONS

Aiken Environmental Coalition, SC (Ronald H. Heston)

Alliance of Minnesota Energy Industries (Steven Dess)

Alternative Energy Resources Organization (AERO) (Al Kurki)

Appalachia Science in the Public Interest (Albert Fritsch)

Bethel New Life, Chicago (Luther Snow)

Campaign for a Prosperous Georgia (Tim Johnson)

Catholic Rural Life Coalition of Iowa

Center for Neighborhood Technology, Chicago (Scott Bernstein)

Citizens' Action Council of Indiana (Janelle Cousino)

Citizen's Health Committee, CO (Susan Franta)

Citizens' Utility Board, WI (Kathleen F. O'Reilly)

Coalition for a Grass Roots Shelter, MI (Lewis Okun)

Colorado State University Solar Energy Applications Laboratory (Karen Den Braven)

Como Energy Project, St. Paul (J. Barry Eliason)

Conservation Council of North Carolina (John Runkle)

Energy Association of New Hampshire (Thomas E. Hinman)

Environmental Action Resource Service, Colorado (Lane Thomas and Steve Wachterman)

Florida Appropriate Technology, Big Bend League of Conservation Voters, Apalachee Recycling Center, and Community Action Committee of United Church in Tallahassee, FL (Bernard Windham)

Georgia Solar Coalition (Jeffrey S. Tiller)

Illinois Alcohol Fuel Association (Lloyd Reeser)

Illinois Safe Energy Alliance (Dr. Rochelle Zelman)

Illinois Solar Energy Association (Mark Elmore)

Institute for Alternative Agriculture (Dr. Garth Youngbird)

Iowa American Agriculture Movement

Iowa Citizen Action Network (Mike Lux)

Iowa Citizens for Community Improvement (Carol Kress)

(Continued)

Iowa Farmers Union
(Pete Groghan)

Iowa Farm Unity Coalition

Iowa National Farmers Organization
(Richard Steffen)

Iowa U.S. Farmers

Iowa UAW CAP Council

Interfaith Agency for Peace & Justice, Iowa

Jamestown Audubon Society, NY
(Rose Mary Wilcox)

Jordan Energy Institute
(Niels Anderson)

Lander Energy Conservation Council
(Roger Potratz)

Louisiana Solar Design Association
(Dr. Jason C. Shih)

Maine Audubon Society
(Christine T. Donovan)

Maine Solar Energy Association
(Sandra Dickson)

Michigan Solar Energy Association
(Fred Gerau)

Minnesota Solar Energy Association
(Mark Lautgeb)

Minnesota Solar Industries Guild
(Karin Wilson)

Minnesota Wind Energy Association
(Paul Jacobs)

Montana Wind Energy Association
(Joe Farrell)

New England Solar Energy Association
(Larry Sherwood)

New Mexico Solar Energy Industries
Association (Matthew Baca)

New York Metropolitan Solar Energy
Society (Jon Naar)

Northwest Rivers Alliance
(Mark Palmer)

Oklahoma Solar Energy Industries
Association (Ward Slager)

Pennsylvania Solar Energy Council
(Leslie Jacobsen)

The PV Network News, Solar Works
(A.G. Paul Wilkins)

Rhode Island Solar Energy Association
(Domenic Bucci)

Sand County Audubon Chapter
(Mary A. Rather)

Sierra Club—Rocky Mountain Chapter
(Kirkwood Cunningham)

Sierra Club—Blue Ridge Group, NC
(Pete Green)

Solar Energy Association of Oregon
(Phil Barnett)

Solar Oregon Lobby
(Fred Heutte)

Texas Renewable Energy Industries
Association (Curtis O. Higgs)

USU Forestry Club
(Jeff Mecham)

Utah Solar Advocates
(Scott Gutting)

Utah Council of Independent Power
Producers (Colin Jackson)

West Michigan Environmental Action
Council (Mary Louise Stekatee)

Wisconsin's Environmental Decade
(Peter Anderson)

Woodlands Institute
(Michael Meador)

TESTIMONY OF
ROBERT P. KENNEL
SUBMITTED TO THE
SENATE COMMITTEE ON FINANCE
U.S. SENATE
JULY 17, 1985

My name is Robert Kennel, and I am a corporate vice president of Ultrasystems Incorporated, a company deeply involved in the development of alternative energy projects using a full range of renewable energy sources with emphasis on electricity and alcohol production. I am also the secretary of the National Wood Energy Association and a director of the Renewable Fuels Association.

I want to thank the members of the Senate Finance Committee for the inclusion of these comments in your hearings on the S.1220 bill for a fair extension of the energy tax credits beyond the end of 1985. The Renewable Energy and Conservation Transition Act of 1985 is a most important piece of legislation for the energy, economic, and environmental health of the United States, as well as the survival of the renewable energy industry.

The Senate Finance Committee as a whole has been a most consistent and valuable supporter of alternative energy, and numerous personal efforts are appreciated such as those of Senator Wallop, whose 1984 amendment in the House Senate Conference preserved the opportunity for small wood power projects to have a fair chance.

My company, Ultrasystems Incorporated, has several 11 MW small wood power plants currently operating in California; several more 25 MW projects under construction in Maine and California; several cogeneration and small power projects to begin construction in California, Maine, and New York this year; an 11 MW small power project beginning operations in California next month; and an 11.3-million-gallon-per-year barley-to-ethanol plant beginning operations in North Dakota next month. The primary purpose for summarizing these projects is to show that we have "our money where our mouth is," and the deliberations which Congress holds on energy and tax matters this year are extremely important to Ultrasystems, as well as the many others in the industry who have acted in good faith.

As an officer in the National Wood Energy Association (NWEA), I have been proud that the wood energy industry has responded to the challenge of the 1970's energy crises with a maturing that has led to supplying a significant component of U.S. energy needs. NWEA has worked diligently with its over 100 industrial members and with other alternate energy companies and associations to insure the responsible development of the industry within a framework of fairness relative to U.S. energy resources and markets. We have also appreciated the leadership of other organizations such as the Solar Lobby to focus attention on the issues.

Within the larger context, all energy forms can be derived from biomass including liquid, gas, and solid fuels, as well as thermal and electrical end products. Biomass is clearly the most ubiquitous of all potential energy sources, present in all 50 United States in both rural and urban areas. There is biomass energy equivalence grown in the United States to more than double our oil imports. The simple fact is that biomass energy has been dramatically increasing in use over the past 10 years with currently over 5% of U.S. energy supplied by biomass. In order to do that, it has had to displace higher-price energy in the marketplace and receive policy blessings at the federal, state, and local levels. It has not been easy!

Last fall, I had the privilege of speaking behind Senator Paul Tsongas in Boston, who intimated that so much of the nation's energy infrastructure (oil companies, utilities, agribusinesses, financial institutions, government) viewed alternate energy projects as "wimpish." I countered that if anyone had ever put an alternate energy project together, they would know that a "wimp" could never make it. Indeed, while some may believe that "strong men don't eat quiche," it is true that alternate energy developers must eat biomass; sweat in the sun; swim upstream; suck methane gas; sit on geothermal hot seats; cogenerate thunder and lightening; drink denatured alcohol; and create vast quantities of wind! -- and that's just to "levelize" the energy playing field.

Elsewhere in this hearing, other renewable energy proponents will speak their piece, and other biomass proponents will describe the growing energy importance of ethanol and methanol from grain and wood; methane gases from a variety of waste materials; and thermal products from wood gasification. My testimony will emphasize the historical context of wood; the importance of wood energy for electrical power production; and the role that the Energy Tax Credits play in it.

Background

First, there is nothing esoteric about wood. Wood has been a primary industrial fuel source for the United States for the past century. Its use diminished drastically during the middle of this century due to low oil prices and electricity prices, but it became a significant fuel candidate again in the 1970's due to the oil crisis. The forest products industry made obvious use of its own wood wastes moving from less than 40% self-sufficiency to approximately 60% self-sufficiency over the past decade. Wood and biomass usage including home heating has grown from approximately 2.0 quads to almost 3.5 quads over the past decade. From the larger user perspective, there are well over 3,000 commercial, industrial, and utility combustors fired primarily on wood in the United States today.

Second, there are significant benefits from the use of wood to increase the energy, economic, and environmental stability of the United States.

From an energy independence standpoint, wood alone can provide far more energy than all oil imports. Furthermore, wood is highly dispersed around the country so that there is greater energy security at the local level. In small power production, wood is effective in size ranges from 10 to 50 MW, which allow existing utilities to fit such projects within weak spots in the electrical grid. Such projects are also accomplished in 2 to 3 years' time at cheaper capital costs than for coal or nuclear facilities, as well as completion 5 to 10 years earlier.

From an economics standpoint, wood energy projects create jobs during construction, through plant operations, and within the forests. For a typical 25 MW wood-fired power plant, there are created over 100 jobs during construction, 25 jobs at the plant, and 50 jobs in the fuel harvesting and transportation. The annual new taxes from these jobs coupled with corporate taxes from construction profits and property taxes on the plant just during the 2-year construction period yield more new tax revenue by double than the 10% Energy Tax Credit received!

From an environment standpoint, wood energy is one of the cleanest fuels around. There is essentially zero sulfur so that it does not contribute to acid rain as coal plants do. There are no toxic or hazardous materials in wood, so the ash is safely disposed in local landfills or back on the land as a low-grade fertilizer. Removal of the lower-grade materials from the forest allows significantly better forest management, and slash removal decreases the chance of serious forest fires.

Despite these obvious benefits in using wood energy -- and no one has come up with an Achilles Heel -- government support for wood energy has been somewhat short of promise over the past decade. Attachment 1 is a Congressional Record statement (to which I contributed) by Senator Howard Baker in 1978 which pointed out actions that the Department of Energy under the Carter Administration should take on wood energy. Those actions never were taken, and wood remained the forgotten energy source under the "solar umbrella." Attachment 2 is a radio statement (to which I also contributed) by Ronald Reagan just before he ran for President. Similarly, the Reagan Administration has not lived up to these same words with continued high-level tax supports for conventional fuels and constant threats against tax supports for renewable energy.

Current Situation

Although wood energy usage has grown over the past decade, the wood energy industry has not had the opportunity to fully mature on a level playing field with all other conventional energy sources. This situation has become more visible with the lower oil prices of the past 2 years and the loss of the Energy Tax Credits at the end of 1985.

Despite the significant growth in wood energy, the wood energy industry is threatened primarily by economics. The financial community still has to become comfortable with the long-term availability of wood fuel -- that it really is a renewable resource and God continues to grow trees in abundance. As the supplies of "free" fuel or mill wastes are committed to forest product industry energy independence (up to 3 quads of energy), the greater use of wood to double or triple that contribution still requires a known government policy and a level energy playing field to grow and mature.

For instance, the equipment to harvest and combust wood fuel is quite capital intensive. The combination of current lower oil prices and the Treasury 2 "triple whammy" of no extension of Energy Tax Credits, elimination of Investment Tax Credit, and reduction of Accelerated Depreciation provisions would devastate the wood energy industry. The tax code remains a proper avenue to promote energy policies and it is still the least expensive and least burdensome way for private enterprise to do business with the government.

Even the Public Utility Regulatory Policies Act of 1978 (PURPA) which directed that fair prices (avoided costs) be paid for power sold to a utility has not helped wood energy contributions reach maturity. Indeed, around the United States the common utility occurrence is that "avoided cost" payments for wood-generated power are falling, while retail prices for power are rising.

PURPA has been a necessary, but insufficient, condition for the wood energy small power industry. Similarly, the Energy Tax Credit has been a necessary, but insufficient, condition. They must work together in a "levelized" energy market to be effective. That was Congress' intent in 1978 when the energy legislation was passed, but conditions have not allowed them to work in tandem until last year.

Until the spring of 1984, PURPA remained under a judicial cloud due to the several Supreme Court challenges with a resulting slow implementation by utilities and utility commissions around the country.

Over the past year, both the Congressional PURPA intent and the Energy Tax Credit intent have worked in tandem with notable success in the development and implementation of projects. However, no industry can mature with only several years of intended conditions. What has been shown over the last several years is that the industry can work, and the resulting projects do have those energy, economic, and environmental benefits to the country.

My simple but earnest plea is that Congress recognize the full benefits of renewable and alternative energies for the health of this nation. Please extend the Energy Tax Credits as described in S.1220 to be phased out over the next 3 years. In a similar vein, the elimination or further reduction of the Investment Tax Credit and Accelerated Depreciation provisions over that same time period as proposed in Treasury 2 should be defeated.

A cleaner, more prosperous, and secure nation would be the only result. We are proud and happy to have done, and will continue to do, our private enterprise part.

Thank you for your attention and positive consideration.

ATTACHMENT 1

*Congressional Record

United States of America

PROCEEDINGS AND DEBATES OF THE 95th CONGRESS, SECOND SESSION

Vol. 124 WASHINGTON, THURSDAY, JULY 20, 1978 No. 110

*Text prepared verbatim by
R. P. Kennel, Ultrasystems

Senate

THE ENERGY PROGRAM

● Mr. BAKER. Mr. President, yesterday, the Congress embarked upon the final leg of passage for a comprehensive energy program for the United States of America. This is a task that has been long delayed and is sorely needed.

But, I am disturbed over the failure of the Department of Energy and the President's energy plan to address a source of domestic energy production that I think holds enormous potential, the burning of wood products to produce energy.

I am troubled by the low priority that has been given to wood fuel, or as it is more scientifically known, solar biomass energy. Considering the vast amounts of this potential energy source within the United States, and the fact that perhaps as much as 60 percent of our commercial forest yields go to waste, I am hard pressed to understand the Department of Energy's reluctance to devote more time and investigation to this energy source.

A number of companies have already committed themselves to increase utilization of this vital fuel source. In Michigan a number of companies have joined together in a firm commitment to developing wood fuel as a viable alternative for this country. The Michigan legislature and that State's public service commission have investigated this subject and have found wood fuel to be a credible source for future fuel production. In my own State of Tennessee, the Tennessee Valley Authority has committed itself to the study and development of wood-burning energy as a source of power generation.

This recognition by other segments of our society of the need to increase utilization of our domestic biomass potential, when compared with the efforts being made by the Department of Energy, leave me greatly concerned. I am therefore calling upon the Department to commit itself to greater utilization of this vital domestic fuel source.

I know that it is the desire of the American people to be free of our present dependence on foreign fuel sources. The only way this can be achieved is for us to make maximum use of all of our domestic productive capacity.

To underemphasize or ignore this vital and abundant domestic fuel source, is to ignore the wishes of the American public. That is something I do not wish to see happen.

Mr. President, I ask that the remainder of my remarks be printed in the Record following this statement.

The remarks follow:

REMARKS BY SENATOR BAKER

[illegible] FOR WOOD ENERGY

The arguments that can be made for the increased commercial use of wood energy outside the forest products industry are [illegible] powerful. Most of these reasons have been around for a long time, and the positive characteristics can be summarized briefly as follows:

a. Inexpensive price.—Wood fuel in the form of whole tree chips cost less than $1.20 per million BTU's. Industrial wood wastes are even less expensive in the $.60 to $.80 per million BTU's.

b. Fuel availability.—The wood resources within the country are known to be significantly more than the U.S. Forest Service's commercial inventories. They have estimated over a billion tons of unused wood per year (1.2 billion barrels of oil equivalent), and even this estimate may also be conservative.

c. Established technology.—Commercial wood harvesting and combustion technologies have both been adequately demonstrated by the forest products industry for system technical feasibility.

d. Renewable and expandable.—Wood energy is one of the few renewable resources besides solar, ocean, wind, and other biomass. Moreover, it is here today while the other technologies require significantly more research. Good forest management has already demonstrated 10% increase in annual growth over the past 20 years.

e. Nonpolluting.—Wood contains less than 0.1% sulfur, far less than the lowest sulfur coal. Combustion temperatures are low enough that nitrogen oxides are not a problem. The smoke particulates are easily captured by low cost, mechanical pollution control equipment; and the ash even has [illegible] and nutrient value.

f. Land value improvement.—Harvesting by thinning or clear cutting increases the residual land value. Reforestation incentives have recently been dramatically improved. Whole tree harvesting also eliminates forest residues upon which forest fires thrive.

g. Jobs creation.—New jobs are created in the rural community with a direct three persons per 15,000 pounds of steam/hour new capability. The fuel supply is also not sensitive to labor disputes.

In addition to these stated benefits, there are also dynamic conditions which have evolved over the past few years which have helped to create the current potential for significantly increased wood fuel usage.

a. Conventional fuel concerns.—The costs of other combustible fuels is currently high ($1.40 per million BTU's for coal, $2.50 for oil, and $2.25 for natural gas), and they are all going higher. There is the ever present danger of fuel supply interruptions due to strikes, shortages, and embargoes for coal, natural gas, and oil respectively while wood is not nearly so susceptible. There are also "balance of payment" implications for the given state, region, or nation. Moreover, wood fuel is available just about everywhere in the United States.

b. Maturation of wood harvesting techniques.—The whole tree chipping technology has matured over the past five years and is currently recognized by loggers as a dependable and economical harvesting technique for most forests.

c. Energy independence by wood industry.—There is an increasing move toward energy self-sufficiency in the wood industry, particularly in the pulp and paper industry. Most of the wood energy system parameters have been proven within the wood industry and are available for commercial applications outside the wood industry.

d. Growing endorsement of environmental/conservation benefits.—The U.S. Forest Service, State Forestry Officials, Forestry Schools, and Wood Industry Foresters are all pushing the value of good forest management through selective harvesting. There is also a growing recognition of the need for a comprehensive forest inventory for wood biomass.

e. Continuing unemployment.—There is a recognized need for new job creation in rural areas as well as urban; and wood energy allows the creation of healthy, productive jobs in the forests of rural areas.

POTENTIAL DOE ROLE

Wood energy as an identifiable subject has entered in the Department of Energy (and its predecessors) in only two areas to date: Combustion Research and Biomass Fuels groups from the previous ERDA Conservation organization. Very little combustion research was done in the former, and emphasis was placed on synthetic fuels and biomass production in the latter. Wood has had a "secondary alternate" fuel status within DOE.

It is also generally agreed that wood energy on these bases is ready for commercialization outside the forest products industry, and yet it is not happening at a rapid rate. The question then is what should the Department of Energy do at this time to help increase the application of wood energy as a fuel alternative.

The DOE can confidently take three immediate steps:

1. Issue a policy statement on wood energy that clearly delineates those portions ready for commercialization and those portions still in the research/development stage.

2. Perform an immediate program definition for the commercialization program by either a DOE task force or a contracted study or both. This unsolicited proposal addresses itself to this task.

3. Implement a follow-on DOE Wood Energy Commercialization Program which would contain the following features:

a. Sponsorship of a national wood energy data base for the country, i.e., how much wood is available for "energy use," where is it available, and who is currently using it.

b. Study of the economic parameters that are involved in wood becoming a fuel "commodity" i.e. land ownership, harvesting, preparation, transportation, supply contracts.

c. Provide broad publicity on advantages and disadvantages of wood energy to include endorsements from U.S. Forest Service as well as outlining environmental (less pollution, better forests) and economic (lower fuel costs, new jobs creation) benefits.

d. Highlight the elements in the National Energy Act that are already built in to help the commercialization/demonstration of wood energy (i.e. Investment Tax Credit, removal of [illegible], [illegible] etc.).

e. Identify other incentives that are currently available (Forest Improvement Program) or needed (Harvesting Equipment Purchase Incentives) to further encourage wood energy conversion.

4. Implementation of commercial demonstration programs under the name of wood as a commercial biomass fuel. The program would state wood supply and demand for industry, institutions, and utilities outside the forest products industry. The program baseline would be whole tree chipping for fuel supply and direct combustion for steam energy production. Other program variables could include wood wastes and purchased wood as supply variables and electricity cogeneration as a demand variable. ●

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ATTACHMENT 2

ULTRASYSTEMS PARTICIPATION IN TEXT PREPARATION 1979

WHAT DOES RONALD REAGAN HAVE TO SAY ABOUT WOOD ENERGY?

(Reprint of a radio program Commentary by Ronald Reagan)

When we have an opportunity to go to the ranch, which is not as often as we'd like, we're off and running. And once there, we never have to ask, "What will we do?" There is an ongoing, perpetual chore we can always turn to after a horseback ride or before, for that matter.

Our house is heated only by fire places so the chainsaws are always gassed up and waiting. But they are used for more than building up the woodpile. Much of the ranch is covered by a beautiful forest of California Live Oak and Madrone trees. It's beautiful to look at but not easy to walk through. You really can't see the forest for the trees.

Nancy and I and our friend Barney have taken to clearing pathways and even entire groves with two chainsaws, a pruning saw, jeep and trailer. Our beautiful forest is a jungle of underbrush, windfalls, dead trees and dead limbs on live trees. The sun can't get through to the forest floor so new young trees die aborning.

We've concentrated on one grove near the house. It is an arduous, back breaking and slow job but the reward is great. The dead limbs and the prunings are piled high in the trailer and then hauled out to a clearing and stacked for burning when our California rainy season comes. The heavier limbs and fallen trees are cut to fire place length and used to heat the house. Gradually this one grove has become park-like. The good trees can be seen as the sun dapples the earth beneath as we walk or ride horseback through that particular grove. Already we've seen an increase in wildlife as deer browse on the new growth. Unfortunately there is no way we can ever complete the job on the entire forest and having it done would cost hundreds of dollars an acre.

Now what I've described is true of just about all the forest land in America. Whether we're talking commercial lumber land, privately owned timber or national forest, if there isn't a trail you can't go very far into the woods. But what if I told you that forest land, which covers half the country—not counting groves of non-commercial lumber like ours, can not only become beautiful and park-like with increased wildlife but it can do a lot to solve our energy problem?

No—I'm not suggesting we cut down our forests. Quite to the contrary. Even the most ardent environmentalists approve the idea of clearing forests of dead wood and fallen limbs which make forest fires more probable and also more uncontrollable.

For some time now a gentleman named Norval Morey has been pleading the cause of harvesting junk wood as an energy source. He is President of Morbark Industries, Inc. in Winn, Michigan. He explains that junk wood consists of trees in our forests that are dead, dying, diseased, over crowded and over mature. He not only pleads the cause, he's doing something practical about it.

In the United States (not including Alaska) we harvest about one percent of our wood per year for lumber and paper. Our forest lands produce each year six to seven billion tons of new fiber. This means about five billion tons of fiber is wasted each year as trees die or become old and cease to increase in size. Limbs fall, disease and rot set in. Young trees are stunted, unable to grow because they are smothered by windfalls or are unable to get needed sunlight. This five billion tons of waste wood is the equivalent of eight-and-one-half billion barrels of oil. We only import three-and-one-half billion barrels a year.

What Mr. Morey is pointing out is that less than half of the waste or junk wood in our forests—which makes for a giant forest fire danger—can be used instead to produce steam or electricity equal to what we produce with all the oil we import. And the forests will be healthier and more attractive.

Anticipating a question as to how we harvest this tangle of underbrush, dead trees, stunted trees and old trees, the answer is Morbark Industries is doing this everyday. We all have some idea of regular harvesting practices, the chain saws, bulldozers, cable skidders and the debris left behind; tops, limbs, etc. This conventional method produces some three to ten tons of wood per man day. Presently, whole tree chipping produces up to and in some cases over 50 tons per man day.

An hydraulic shear reaches out and cuts the diseased or over age tree like you snip a cutting from a rose bush with a pair of clippers. A grapple pulls the tree and feeds it, limbs, top and all into a Chipharvestor. The Chipharvestor is a machine that chews up the tree and spits it into a waiting truck in the form of wood chips and the truck heads for the power plant, factory or paper mill. Morbark is already delivering to paper mills two grades of chips: One, the top grade, is used to make the paper and the lower grade fuels the boilers.

There has been a recent addition to this mechanical chain—a gasifier which turns the waste wood into a natural gas increasing its heat energy. One fellow put it this way—"It even burns up the smoke." Incidently, whether burned as chips or gas, wood fiber is free of the pollutants found in other fuels. And when the machines pull out they leave a park-like forest behind with new shoots sprouting from the root systems providing food and shelter for wildlife.

The term used to describe the process is environmental thinning and we have in the United States 736 million acres designated as commercial grade forest. We don't know how many millions of acres of groves and timber in addition, but in that commercial forest land there is an estimated 100 billion tons of trees of which 40 percent is junk or waste wood and the supply renews itself on a permanent basis.

(An audio version of this is available upon request. Also, a video version of his commentary has been made and is also available. Please contact Mike [illegible], Box [illegible], Winn, Michigan [illegible] for these reprints.)

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Submitted

to

Senate Committee on Finance
Washington, D.C.

on

The Potential Impact of the Tax Simplification Proposals on Energy Conservation and Renewable Energy Resources

Bennett Miller
Chairman
National Wood Energy Association

and

President/Alternate Gas, Inc.

July 17, 1985

Good Morning Mr. Chairman.

Thank you for inviting me here to testify before your committee. My name is Bennett Miller and I am here today on behalf of the National Wood Energy Association, an association of industrial firms interested in promoting the environmentally sound use of our nation's vast wood resources. The National Wood Energy Association has over one hundred industrial members from forty three states, and our monthly publication now reaches over 15,000 people interested in wood energy throughout the country. I am also president of Alternate Gas, Inc., a Washington-based company that specializes in using wood as a feed-stock to produce a fuel substitute for oil and natural gas.

This morning, Mr. Chairman, I would like to address in some detail the impact of the President's recent tax initiative on the future of commercial wood energy initiatives. Fundamentally, our industry is greatly disappointed by the current proposal. Not because we are opposed to tax simplification, quite the contrary we are enthusiastic and supportive of it. But, we have supported tax reform because we have believed that the keystone of any new approach to corporate taxation would be the legislation of a level playing field in the marketplace, a field that would give all players a fair crack at selling their products on their merits, with an absolute minimum of government subsidy. Unfortunately, in the energy business, it appears to us that the level playing field has been replaced by a ski slope with wood energy at the bottom looking up!

If the current proposal is enacted into law, it will destroy a new and growing industry; it will lessen our national ability to meet an uncertain energy future, and it will consign to the scrap heap re-emerging technologies that offer cost effective ways of providing alternatives to conventional oil and gas systems.

Fortunately, most of what we see can be attributed to misunderstandings regarding the commercial nature of wood based energy technologies. But we need to set the record straight now, because those misunderstandings are being cast into a form that will institutionalize a bias toward non-renewable energy systems. What are the facts?

(1) Wood based systems can impact on our national energy supply system and they can help this nation achieve its long cherished goal of energy self sufficiency. The Congress' Office of Technology Assessment estimates that our national inventory of non-commercial timber is almost as large as our proven reserves of natural gas, and as a nation we are adding several percent to that inventory each year.

(2) In energy terms, just the new growth each year of non-commercial timber has the energy potential of all the nuclear power plants in operation in 1982. Of course not all of that inventory is available for energy production, but a large fraction is, and it is available each and every year.

(3) It is generally acknowledged by the Office of Technology Assessment and by the Department of Energy that wood can provide up to ten quads per year, three times our nuclear energy production in 1982, with today's technology or relatively straightforward extensions of it.

In short, our wood feedstock base, is a major one; it is contributing about 2.2 quads to our primary energy supply today -- over 3% of the nation's overall primary energy consumption. Almost all of this consumption comes from wood and wood waste utilized by the forest products industry, which is consuming about 1.3 quads of that resource.

One may ask, then, why are we concerned about tax incentives for wood based systems if we are already generating 2.2 quads of energy from wood? The answer is quite simple. The forest products industry has just about used up all its free wood waste -- in fact, many new wood fired installations in the forest products industry rely on purchased fuel -- and the residential wood market is very nearly saturated. From here on, the economics of wood systems will depend on paying for wood fuel and competing with cheaper conventional fuels. We are at a stage in our development of wood energy that is identical to where the country was in the mid-1970's with respect to industrial conservation. We have done the easy conversions -- the conversions that are the equivalent of insulating attics and hot water pipes, of double glazing windows and the like. We are now at the point where the economics of each system has to be considered as a whole, without any "freebies." In this environment, wood fueled systems are no longer the runaway winners they were when fuel was free; and yet the potential for wood replacing conventional fuel is still significant and important in the context of our overall national goal of being energy self reliant.

In the industrial sector, alone, there are over 50,000 boilers that are currently burning oil and natural gas which could be converted to burn wood or a by-product of wood. These boilers consume approximately 5 to 6 quads of expensive energy per year. In short, in the industrial sector, there is a potential for 3 times the current consumption of wood, but it's not happening.

Outside the forest products industry there are very few wood-fueled fired systems in the industrial sector. A qualitative change in the marketplace has developed as the forest products industry has completed the easy conversions. If we are to take advantage of our major, untapped wood energy resource, we must make the next round of conversions more attractive to industry than they currently are. How to do that is the issue that I would like to address now.

But first, let me say a word about how wood can be converted to energy. There are many ways and many conversion technologies. This fact often leads to confusion when the issue is that of providng incentives. Therefore, I will discuss the two that are closest to the marketplace -- burning wood direclty to produce heat; or burning it in an oxygen-starved environment which produces a synthetic gas that is, in all respects, identical to coal gas except that it is much cleaner. In the spectrum from reseach to commercialization, these two ways of using wood, direct combustion and gasification, are closest to commercialization. My remarks will be directly primarily to them, but, obviously, to the extent that they have any merit when applied to technologies that are nearly commercial, they have at least equal merit when applied to technologies that are farther removed from the marketplace.

Direct combustion and gasification fit very well into industrial applications. Boilers that burn oil or natural gas can be easily retrofit to burn wood gas. New boiler installations can be easily designed for direct combustion. But these conversation are not being pursued by industry. This paradox, namely that there are supposedly economic technologies available today to convert wood to energy and yet they are not being utilized, has a simple explanation.

Industrial energy users are reluctant to convert to wood-fueled systems for three reasons. First, they are uncertain of the availability of supply. Second, many are basically unaware of the state of conversion technology and need to be convinced it is real, and, third, for those who are aware of the availability of supply, the overall economics tends to be marginal when fuel has to be purchased. This is not to suggest that these systems do not make sense. They do, but, in general, they are sufficiently close to the margin that an energy user is reluctant to take the step to convert from conventinal fuels to wood. This is particulary true today with the current moderation in oil prices and the uncertainty regarding natural gas deregulation. Compounding this problem of course is that fact that the current legislation actually discriminates against these technologies by providing continued incentives to oil and gas producers. The economics of using wood as a substitute is obviously diminished.

When you put all these factors together -- moderating convential fuel prices, investor concern about feedstock availability, unawareness of the state-of-the-art, and legislation that excludes emerging options -- we have a situation where the marketplace will not now respond unless some incentives are provided and a stable, financial and technological environment is assured. There are two ways to do this in our view.

First, we believe the Congress should extend the energy tax credits that are embodied in HR 2001, a bill that now has over 120 co-sponsers; and second, we believe that the Congress should extend the production tax credits for alternative fuel production and sale that are embodied in the Windfall Profits Tax Act of 1980. This legislation, which is still on the books, is scheduled to be phased out by the end of this year in the President's proposal. Taken together or separately these initiatives represent one small step towards making the ski-slope into an icy patch. Each of these works differently.

The energy tax credit supplements the ITC and as such helps investors "over the first hump" in financing any project, i.e. some relief on the up-front costs. The production tax credit is only available when the money has been raised, the plant built and product produced and sold. Unlike the ETC, it is not an up-front credit, but it does provide some assurance to investors of a longer term reduction of their risk. In addition the production credit has a built in phase out tied to the price of oil that ensures that no one can get a windfall through using it.

Taken together, or separately, these credits will cost only a fraction of what the oil and gas credits and the nuclear subsidies cost the taxpayer on a yearly basis. For wood energy system, we estimate the ETC to cost about $10 million per year over the next ten years and about the same amount per year for the production tax credit. When we compare these numbers with the numbers associated with convential funds, they pale by comparison.

Our nation now spends more than $27 billion annually on tax breaks to the energy industries. Almost all of these expenditures are for oil, gas, coal and nuclear, giving these non-renewable resources a great competitive advantage over energy efficient and renewable energy resources. Current tax policy is promoting a short-term solution to a long-term problem, without even accounting for the environmental costs of pursuing this path.

In this last regard, we would note that burning wood in industrial application is probably one of the cleanest ways to produce energy today. All industrial wood systems easily meet all state and federal pollution regulations. Moreover, since wood has no sulfer, there is no possibility of acid rain -- none. Since wood has no chlorine, there is no dioxin problem. Since wood has no heavy metals, there is no ash disposal problem. Utilizing our non-commercial wood resourses is a clean, efficient way of helping our nation save its precious hydrocarbon fuels for other high grade uses, like manufacturing petrochemical products. Isn't it a shame to waste that wonderfully complicated molecule, called oil, that took millions of years to make, on the simple production of heat. Rather let us use it more wisely. Wood energy helps us do that.

In my judgement, Mr. Chairman, action on the part of the Congress to extend these credits will ensure a much more aggressive program on the part of energy users to convert to wood use. Why can I state this so confidently? There are a number of examples that I would like to cite of major industrial users of energy who have chosen to install wood burning systems because of the availability of these credits and who have indicated to us, explicitly, that they would not have done so, or would have agonized over the decision, without that credit. Let me give you several.

- The Packaging Corporation of America's 90MW wood fired plant in Counce, Tennessee probably would not have proceeded if it were not for the energy tax credit.

- The installation of a 20,000 pound per hour wood-fired steam plant at the White Pine Copper Mine in White Pine, Michigan would not have proceeded, if it were not for the availability of the energy tax credit.

- Two, 10MW, wood-fired systems being constructed by Ultrapower, Inc. of California could not have been financed without the energy tax credit; nor could two similar systems about to be constructed by that company, or six in project development. All of them are only financiable with the credit.

- And, the availability of the production tax credit was essential to the financing of five wood gasification facilities with a combined energy production capacity of over 600 MMbtu/hour, which is about equivalent in electrical terms, to 60 MW of power.

There are many other examples that I can cite from our records. Suffice it to say, that in the industrial sector, where wood could conceivably contribute several more quads to our energy supply, thereby relieving pressure on oil and natural gas, and circulating money and creating jobs in the local economy, installations are going forward because of these credits. They will not go forward without them.

I believe, Mr. Chairman, that at this point in time, the extension of the energy tax credit and the production tax credit is essential to help continue this transition from convantial hydrocarbon to wood fuels, where such conversions make sense. I believe that in the ten years through 1995, enough of these systems will be installed that the industrial community will then be able to make choices on their own without the tax credit because they will have seen enough of them to be relieved of their original concerns regarding feedstock availability, equipment reliability, and overall economic attractiveness. Until that time, however, the tax credits are absolutely crucial to providing the impetus for effective wood energy use.

Mr. Chairman, to this point, I have purposely focused my remarks on wood and wood fueled systems becuase I believe the issues surrounding the extension of the tax credit for biomass are often linked to concerns regarding wood. In closing, I would like to provide some perspective on the overall biomass issue. When our attention extends beyond wood, the resource base expands quite dramatically. To the total of commercial and non-commercial timber, can be added the energy value of agriculture wastes that can add an additional 1 quad to our energy inventory and the value of aquatic and emergent systems, which are still in the research phase, is probably in the multi-quad range.

This nation enjoys a significant reserve of biomass that can be used for energy. The technologies to convert this resource economically to energy are in various stages of development -- some closer to the market place, some farther away. Anerobic digestion of animal and agricultural waste is one that is closer and would benefit from these credits.

Finally, our Association seeks your support in rectifying the inequities in the current legislation. Wood can be an important contributor to our energy independence. In the rush to reform our tax code, let us move cautiously and prudently lest we neglect to protect that part of our national interest that is tied to the ready and continued availability of domestic energy supplies.

A.O. SMITH HARVESTORE PRODUCTS, INC.
BEFORE THE COMMITTEE ON FINANCE,
UNITED STATES SENATE,
ON ENERGY TAX INCENTIVES - S.1220 AND
THE ADMINISTRATION'S TAX PLAN

JULY 17, 1985

I. INTRODUCTION.

GOOD MORNING. MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM MARK J. RIEDY, COUNSEL TO A. O SMITH HARVESTORE PRODUCTS, INC., HEADQUARTERED IN ARLINGTON HEIGHTS, ILLINOIS, AND AN ATTORNEY IN THE WASHINGTON, D.C. LAW OFFICES OF SPRIGGS, BODE & HOLLINGSWORTH. I AM SUBMITTING THIS BRIEF WRITTEN TESTIMONY CONCERNING S.1220,[1] ENTITLED THE "RENEWABLE ENERGY AND CONSERVATION TRANSITION ACT OF 1985," AND THE ADMINISTRATION'S TAX PLAN, ON BEHALF OF THE COMPANY.

A.O. SMITH HARVESTORE PRODUCTS, INC. IS ONE OF FEW UNITED STATES COMPANIES RECYCLING NONFOSSIL ORGANIC WASTES INTO ENERGY AND VALUABLE CO-PRODUCTS THROUGH A PROCESS OF ANAEROBIC DIGESTION. THE COMPANY, WITH ITS PATENTED ANAEROBIC DIGESTION SYSTEM, BIOLOGICALLY FERMENTS THESE WASTES IN AIRTIGHT BIOMASS ENERGY EQUIPMENT TO PRODUCE BIOGAS. IN TURN, THIS BIOGAS, A BACTERIAL CREATION OF APPROXIMATELY 60 PERCENT METHANE-AND 40 PERCENT CARBON DIOXIDE-CONTAINING GAS IS CONVERTED INTO FUEL OR ELECTRICITY. UNLIKE NATURAL GAS, WHICH IS NON-RENEWABLE, METHANE IS A PARTICULARLY VALUABLE ALTERNATE ENERGY SOURCE, BECAUSE IT IS RENEWABLE

AND BECAUSE, ON THE BASIS OF BTU CONTENT, IT IS AN APPROXIMATE SUBSTITUTE FOR NATURAL GAS.

II. POSITION - S.1220.

A. STATUS OF THE ANAEROBIC DIGESTION INDUSTRY.

WE WELCOME THIS OPPORTUNITY TO PRESENT TO THIS DISTINGUISHED SENATE PANEL OUR VIEWS, FULLY SUPPORTING THE EXPRESS QUALIFICATION OF ANAEROBIC DIGESTER SYSTEMS AS BIOMASS PROPERTY FOR THE 10 PERCENT ENERGY INVESTMENT TAX CREDIT ("EITC") IN S1220. WE FURTHER SUPPORT THE THREE-YEAR PHASEDOWN EXTENSION OF THE QUALIFICATION PERIOD FOR THE USE OF THIS CREDIT (I.E., 10 PERCENT - 1986 AND 1987, 5 PERCENT - 1988, TERMINATION - JANUARY 1, 1989). WE HOWEVER, DO NOT SUPPORT THE ADMINISTRATION'S MAY 29, 1985 TAX PROPOSAL, WHICH WOULD ALLOW THIS CRITICAL BIOMASS EITC TO EXPIRE ON DECEMBER 31, 1985 WITHOUT EXTENSION.

1. THE AGRICULTURAL AND MUNICIPAL MARKETS

THE ANAEROBIC DIGESTION INDUSTRY PRIMARILY GENERATES REVENUES THROUGH TWO PRINCIPAL INDUSTRY SEGMENTS: 1) THE AGRICULTURAL AND 2) THE MUNICIPAL MARKETS.

IN THE AGRICULTURAL MARKET, ANAEROBIC DIGESTER SYSTEMS ARE UTILIZED IN THE TREATMENT OF ANIMAL WASTE AND FOOD PROCESSING RESIDUES. THE POTENTIAL MARKET PRIMARILY INCLUDES DAIRY, BEEF, POULTRY, SWINE, CHEESE WHEY, CANNERY AND

OTHER AGRICULTURAL PROCESSING OPERATIONS. THIS MARKET PRESENTLY INCLUDES A SMALL NUMBER OF COMPANIES COMMERCIALLY MARKETING METHANE DIGESTERS. WE ESTIMATE, FROM THE DESIGN AND CONSTRUCTION OF DIGESTER SYSTEMS FOR THIS MARKET, THAT 1986-1988 SALES ONLY SHOULD REACH $27 MILLION. THIS FIGURE, THUS, WOULD REPRESENT A *DE MINIMIS* $2.1 MILLION REDUCTION IN REVENUES[2] FROM THE USE OF THE BIOMASS CREDIT FOR ANAEROBIC DIGESTERS ON S.1220'S PROPOSED PHASEDOWN EXTENSION BASIS.

A. O. SMITH HARVESTORE PRODUCTS, INC., THROUGH ITS ANAEROBIC DIGESTION DIVISION, HAS INSTALLED SEVEN DIGESTER SYSTEMS IN THE UNITED STATES SINCE AUGUST 1980. THE ANAEROBIC DIGESTION INDUSTRY HAS INSTALLED APPROXIMATELY 46 SYSTEMS SINCE 1980, WITH 30 OF THESE UNITS COMPLETED SINCE 1983. THE SIZES OF A. O. SMITH HARVESTORE PRODUCTS, INC. OPERATING UNITS VARY FROM 26,000 GALLONS AT A $64,000 (DECEMBER 1981) TOTAL PROJECT COST TO 155,000 GALLONS AT A $450,000 (DECEMBER 1983) TOTAL PROJECT COST. THE COMPANY EXPECTS TO INSTALL EIGHT DIGESTERS IN 1985, 15 DIGESTERS IN 1986, 24 DIGESTERS IN 1987, AND 40 DIGESTERS IN 1988. THE AVAILABILITY OF THE 10 PERCENT BIOMASS EITC WOULD SWELL INDUSTRY SALES BY REDUCING TOTAL PROJECT COSTS TO FARMER-INVESTORS. THE RESULTANT SALES WOULD PRODUCE A SIGNIFICANT INCREASE IN RENEWABLE BIOGAS FUEL FOR THE CRITICAL ENERGY NEEDS OF THE AGRICULTURAL SECTOR OF THE UNITED STATES.

IN THE MUNICIPAL MARKET, ANAEROBIC DIGESTION SYSTEMS ALREADY ARE LONG ESTABLISHED IN THE TREATMENT OF HUMAN WASTE. THESE SYSTEMS CONVERT SEPTIC TANK WASTES INTO A

COMMERCIALLY SALEABLE FERTILIZER PRODUCT. A SMALL NUMBER OF COMPANIES CONTROL THE COMMERCIAL MARKETING OF ANAEROBIC DIGESTERS FOR MUNICIPALITIES. WE ESTIMATE FROM THE DESIGN AND CONSTRUCTION OF DIGESTER SYSTEMS FOR THIS MARKET SEGMENT, THAT 1986-1988 SALES SHOULD EXCEED $300 MILLION.

THIS INDUSTRY'S GROWTH IN THE AGRICULTURAL MARKET WILL BE AFFECTED SIGNIFICANTLY BY ITS ABILITY TO DEVELOP SYSTEMS THAT ARE ECONOMICALLY VIABLE FOR SMALLER SIZE FARMS. IN ADDITION TO TECHNOLOGICAL IMPROVEMENTS, THE ABILITY TO USE A 10 PERCENT BIOMASS EITC IN THE FIRST YEAR OF A DIGESTER'S OPERATION COULD DETERMINE THIS EQUIPMENTS' FEASIBILITY FOR SMALL SCALE FARMS. THE PURCHASERS (I.E., MUNICIPALITIES) OF ANAEROBIC DIGESTION SYSTEMS FOR MUNICIPAL WASTE TREATMENT PLANTS GENERALLY ARE TAX EXEMPT. THE IMPACT OF AN EITC FOR THOSE PURCHASERS, THUS, IS SUBSTANTIALLY LESS CRITICAL THAN FOR FARMER INVESTORS IN THE AGRICULTURAL MARKET.

2. ECONOMIC, ENVIRONMENTAL AND POLITICAL/ NATIONAL SECURITY SIGNIFICANCE

THE DEVELOPMENT OF THE ANAEROBIC DIGESTION INDUSTRY CAN PROVIDE SIGNIFICANT BENEFITS TO THE UNITED STATES.

ECONOMICALLY, THE GROWTH OF THE INDUSTRY SIGNALS BENEFITS BOTH THROUGH THE REVENUES GENERATED FROM DIGESTER SALES AND THROUGH THE POTENTIAL ECONOMIC SALVATION IT MAY PROVIDE FOR THE HARD HIT AGRICULTURAL SECTOR OF THE ECONOMY. ANAEROBIC DIGESTION MAY PROVIDE AN ADDITIONAL CASH CROP THAT COULD PERMIT SURVIVAL FOR MANY MARGINAL FARM OPERATIONS. ADDITIONALLY, THE CREATION OF NEW EMPLOYMENT OPPORTUNITIES

FOR OUR NATION'S HARD PRESSED UNEMPLOYED CITIZENS THROUGH A VIBRANT ANAEROBIC DIGESTION INDUSTRY WOULD DECREASE ECONOMIC SUFFERING AND ENHANCE THE FISCAL VITALITY OF THE UNITED STATES.

ENVIRONMENTALLY, ANAEROBIC DIGESTION PROVIDES BENEFITS THROUGH THE PROPER TREATMENT AND DISPOSAL OF AGRICULTURAL AND MUNICIPAL WASTES. THIS TREATMENT IS ESPECIALLY IMPORTANT FOR OPERATIONS CLOSE TO POPULATION CENTERS OR WATER FACILITIES. IT ELIMINATES NOXIOUS ODORS AND REDUCES THE DANGER OF WATER POLLUTION. RELIANCE ON RENEWABLE ENERGY TECHNOLOGIES, SUCH AS ANAEROBIC DIGESTION, AVOID ACID RAIN, HAZARDOUS WASTE DISPOSAL, GLOBAL WARMING FROM CARBON DIOXIDE ATMOSPHERIC BUILD-UP, AND OTHER NEGATIVE ENVIRONMENTAL EFFECTS ASSOCIATED WITH FOSSIL FUEL COMBUSTION.

POLITICALLY, THE ANAEROBIC DIGESTION INDUSTRY CREATES RENEWABLE ENERGY WHICH CAN LESSEN OUR NATION'S DEPENDENCY ON PETROLEUM IMPORTS. RECENT REPORTS INDICATE THAT OUR DEPENDENCE ON SUCH IMPORTED ENERGY PRODUCTS CONTINUES TO INCREASE AND THE SIZE OF OUR SUPPLIES OF ALASKAN PETROLEUM VOLUMES IS VASTLY OVERESTIMATED. FURTHERMORE, THE DEGREE TO WHICH OUR AGRICULTURAL SECTOR BECOMES ENERGY SELF-SUFFICIENT MAY WELL GUARANTEE OUR FOOD SUPPLY DURING TIMES OF NATIONAL EMERGENCY, IF EXTERNAL ENERGY SOURCES ARE INTERRUPTED OR CUT-OFF.

ECONOMIC, ENVIRONMENTAL, AND POLITICAL/NATIONAL SECURITY INTERESTS, THUS, MANDATE THE NEED FOR GROWTH IN THIS INDUSTRY. THE AVAILABILITY OF EITCS, ALONE, CAN ONLY ASSURE THIS REQUISITE GROWTH.

B. S.1220

Congress traditionally has committed itself to the development of renewable alternate energy sources through incentive-based legislation to insure a strong and continued independent base of energy for the United States. The anaerobic digestion industry, in its recycling of nonfossil organic wastes into renewable alternate energy, clearly falls within the intended scope of this commitment. Nevertheless, through inadvertence and despite its clear intent to the contrary, Congress expressly has not encouraged investment into this industry through EITC legislation. These credits are essential to the vitality of this nacent industry.

S.1220, introduced by Senator Mark Hatfield and 10 co-sponsors on May 24, 1985, expressly would include anaerobic digestion equipment with in its purview. (Congressman Heftel introduced the identical measure, H.R. 2001, on April 4, 1985.[3]) Its "methane-containing gas" language, embodied in Section 101(d), would promote the development of the anaerobic digestion industry by expressly making digester equipment eligible for the biomass EITC on a three year phasedown basis.

Section 101(d) of S.1220 would amend Section 48(l)-(15)(C) (*i.e.*, "Biomass Property Provision") of the Internal Revenue Code of 1954 ("Code"), as amended, to include "methane-containing gas" as a "qualified fuel" for purposes of Section 48(l)(3)(A)(iii). 26 U.S.C. §48(l)(3) and (15).

"QUALIFIED FUEL", THUS, WOULD INCLUDE "METHANE-CONTAINING GAS FOR FUEL OR ELECTRICITY, PRODUCED BY ANAEROBIC DIGESTION FROM NONFOSSIL WASTE MATERIALS AT FARMS OR OTHER AGRICULTURAL FACILITIES, AND AT FACILITIES FOR THE PROCESSING OF AGRICULTURAL PRODUCTS." EQUIPMENT (I.E., ANAEROBIC DIGESTER SYSTEMS) FOR CONVERTING AN ALTERNATE SUBSTANCE (I.E., NONFOSSIL WASTE MATERIALS) INTO "METHANE-CONTAINING GAS" (I.E., BIOGAS), AS SUCH, WOULD QUALIFY FOR THE 10 PERCENT EITC AS ELIGIBLE BIOMASS ENERGY PROPERTY.

SECTION 101(A) OF S.1220 WOULD AMEND 26 U.S.C. §46(B)(2)(A)(VI) TO EXTEND THE 10 PERCENT EITC FOR QUALIFIED BIOMASS PROPERTY FROM DECEMBER 31, 1985 THROUGH DECEMBER 31, 1988 ON THE FOREGOING INCENTIVE PHASEDOWN BASIS. THIS PHASEDOWN EXTENSION OF THE CREDITS WOULD PROVIDE HIGH UP-FRONT, CAPITAL INTENSIVE RENEWABLE ENERGY INDUSTRIES, SUCH AS THAT OF ANAEROBIC DIGESTION, THE NECESSARY TIME TO ESTABLISH THEMSELVES TO COMPETE WITH CONVENTIONAL FUELS. THIS PHASEDOWN EXTENSION ALSO DEMONSTRATES THE TRANSITION TOWARDS COMMERCIAL MATURITY, WHICH THE RENEWABLE ENERGY TECHNOLOGIES RAPIDLY ARE APPROACHING.

EITCS PROVIDE TEMPORARY ASSISTANCE FOR CLEAN, NEW, DOMESTIC ENERGY SYSTEMS TO ELIMINATE THE INSTITUTIONAL BARRIERS THAT RENEWABLE ENERGY INDUSTRIES FACE IN COMMERCIAL DEVELOPMENT. THESE CREDITS PERMIT THESE INDUSTRIES TO GAIN ACCESS TO CAPITAL BEFORE COMPANIES' PERFORMANCE RECORDS ARE AVAILABLE FOR FINANCIERS' SCRUTINY. THESE INCENTIVES OFFER FAVORABLE TAX TREATMENT GIVEN CONVENTIONAL ENERGY SOURCES TO

ESTABLISH AN EVEN COMPETITIVE PLAYING FIELD. THE ADMINISTRATION'S TAX PROPOSAL, WHICH WOULD CONTINUE INTANGIBLE DRILLING COSTS AND PERCENTAGES DEPLETION ALLOWANCES FOR THE OIL AND GAS INDUSTRY BUT ELIMINATE VITAL TAX INCENTIVES FOR THE RENEWABLE ENERGY INDUSTRIES, WOULD DESTROY THIS COMPETITIVE FAIRNESS.

EITCS ALSO PROVIDE A CRITICAL COMPONENT OF FEDERAL SUPPORT FOR DEMONSTRATING NEW ENERGY TECHNOLOGIES, PARTICULARLY BECAUSE OF THE SHARP DECLINE IN DIRECT GOVERNMENT SPENDING ON RENEWABLE ENERGY DEVELOPMENT. THEY REPRESENT THE CENTRAL MECHANISM OF OUR NATIONAL ENERGY POLICY TO DIVERSIFY ENERGY RESOURCES. BIOMASS ENERGY, ALONE, INCLUDING ANAEROBIC DIGESTION, ALCOHOL FUELS AND WOOD GASIFICATION, COULD SUPPLY A FIFTH OF THE UNITED STATES ENERGY NEEDS BY 2000.

BECAUSE OF THE EXPRESS INCLUSION AND PHASEDOWN EXTENTION OF THESE CRITICAL BIOMASS EITC PROVISIONS FOR ANAEROBIC DIGESTION EQUIPMENT, A.O. SMITH HARVESTORE PRODUCTS, INC. ENTHUSIASTICALLY SUPPORTS S.1220. WE FIRMLY BELIEVE THAT S.1220 PROMOTES THE LONG-STANDING, CONGRESSIONALLY-CONTEMPLATED PUBLIC POLICY GOALS OF ENCOURAGING THE BROADEST POSSIBLE PROMOTION OF ALTERNATE ENERGY SOURCES. AS SUCH, WE RECOMMEND THAT CONGRESS EXPEDITIOUSLY PASS THIS CRITICAL TAX INCENTIVE MEASURE.

C. ENERGY INVESTMENT TAX CREDITS ON BIOMASS PROPERTY

UNDER THE ENERGY TAX ACT OF 1978, PUB. L. NO. 95-618, CONGRESS ESTABLISHED THROUGH DECEMBER 31, 1982 A 10 PERCENT EITC FOR BOILERS, BURNERS, AND RELATED POLLUTION CONTROL AND FUEL HANDLING EQUIPMENT WHICH PRIMARILY UTILIZE FUELS OTHER THAN OIL OR NATURAL GAS (I.E., "ALTERNATE SUBSTANCE").[4] EQUIPMENT EMPLOYED TO CONVERT THESE ALTERNATE SUBSTANCES INTO A "SYNTHETIC LIQUID, GASEOUS, OR SOLID FUEL" ALSO WAS MADE ELIGIBLE FOR THE CREDIT.[5] ALTHOUGH NOT EXPRESSLY MENTIONED, CONGRESS CLEARLY INTENDED PROPERTY USING BIOMASS FUELS TO QUALIFY FOR THE CREDIT AS "ENERGY PROPERTY" WITHIN THE DEFINITION OF "ALTERNATE ENERGY PROPERTY."[6]

UNDER THE WINDFALL PROFITS TAX ACT OF 1980, PUB. L. NO. 96-223, CONGRESS CONTINUED THIS 10 PERCENT EITC FOR THIS SPECIFIC PROPERTY AND EXTENDED THE CREDIT'S QUALIFICATION PERIOD THROUGH DECEMBER 31, 1985.[7] IT ALSO EXPRESSLY DESIGNATED A 10 PERCENT EITC FOR BIOMASS ALTERNATE ENERGY PROPERTY.[8]

CONGRESS, IN THE CONFERENCE REPORT TO THE WINDFALL PROFITS TAX ACT, EXPLICITLY OUTLINED THE SCOPE IT INTENDED FOR THE TERM "BIOMASS."[9] CONGRESS THERE PROVIDED THAT

> BIOMASS IS GENERALLY ANY ORGANIC SUBSTANCE OTHER THAN OIL, NATURAL GAS OR COAL, OR PRODUCT OF OIL OR NATURAL GAS OR COAL. FOR THIS PURPOSE, BIOMASS INCLUDES WASTE, SEWAGE, SLUDGE, GRAIN, WOOD, OCEANIC AND TERRESTRIAL CROPS AND CROP RESIDUES AND INCLUDE WASTE PRODUCTS WHICH HAVE A MARKET VALUE. THE CONFEREES ALSO INTEND THAT THE DEFINITION OF BIOMASS DOES NOT EXCLUDE WASTE MATERIALS.

> such as municipal and industrial waste, which include such processed products of oil, natural gas or coal such as used plastic containers and asphalt shingles.[10]

Anaerobic digestion equipment clearly falls within the Congressionally-intended scope of qualified biomass property.

Despite the intent of Congress so plainly expressed in the Conference Report, the statutory language uses the term "qualified fuel" instead of the phrase "synthetic liquid, gaseous, or solid fuel" to define eligible biomass alternate energy conversion equipment.[11] It also inadvertently defines "qualified fuel" in a manner inconsistent with its clearly expressed Congressional intent. Specifically, Congress defined "qualified fuel" at Section 48(l)(15)(C) of the Code as

> (i) any synthetic solid fuel, and
>
> (ii) alcohol for fuel purposes if the primary source of energy for the facility producing the alcohol is not oil or natural gas or a product of oil or natural gas.[12]

This restrictive definition does not expressly include methane-containing gas for fuel or electricity, produced by anaerobic digestion from nonfossil waste materials. For that reason, despite the Congress' ultimate aim as expressed so clearly in the Conference Report, anaerobic digestion equipment converting an alternate substance (i.e., nonfossil organic wastes) into biomass-derived methane-containing gas has been interpreted as not qualifying for the EITC. Fortunately, S.1220 does remove the confusion that currently

SURROUNDS THE ELIGIBILITY OF ANAEROBIC DIGESTION PROPERTY FOR EITC PURPOSES.

IN 1982, CONGRESSMAN BEREUTER AND SENATOR MATSUNAGA INTRODUCED H.R. 6131 (ON APRIL 21)[13] AND S. 2766 (ON JULY 21),[14] RESPECTIVELY, CONFIRMING WHAT HAS BEEN CONGRESS' INTENTION ALL ALONG -- NAMELY, THAT ANAEROBIC DIGESTION EQUIPMENT BE ELIGIBLE FOR APPROPRIATE TAX CREDITS. THOSE IDENTICALLY-DRAFTED BILLS WOULD HAVE INCLUDED THIS METHANE-CONTAINING GAS AS A QUALIFIED FUEL. THEY SIMILARLY WOULD HAVE PERMITTED ANAEROBIC DIGESTION EQUIPMENT, PLACED IN SERVICE AFTER DECEMBER 31, 1982, TO OBTAIN THE 10 PERCENT EITC.

ON MARCH 3, 1983, CONGRESSMAN BEREUTER AND HEFTEL REINTRODUCED CONGRESSMAN BEREUTER'S 1982 MEASURE AS H.R. 1876.[15] ON MAY 17 AND 19, 1983, SENATOR PACKWOOD AND CONGRESSMAN HEFTEL INTRODUCED S. 1305[16] AND H.R. 3072,[17] RESPECTIVELY. ON OCTOBER 3 AND 4, 1983, SENATOR WALLOP AND CONGRESSMAN HEFTEL INTRODUCED S. 1939[18] AND H.R. 4078,[19] RESPECTIVELY. S. 1305, S. 1939, H.R. 3072 AND H.R. 4078 INCLUDED THE ANAEROBIC DIGESTER LANGUAGE OF H.R. 1876 IN SLIGHTLY DIFFERENT WAYS. THE "METHANE-CONTAINING GAS" LANGUAGE OF SECTION 201 OF H.R. 3072 IS IDENTICAL TO THAT CONTAINED IN SECTION 7 OF S. 1305, AND SECTION 6 OF S. 1939 AND H.R. 4078 BUT FOR ONE EXCEPTION. H.R. 3072'S LANGUAGE DID NOT LIMIT THE FEEDSTOCK FOR PRODUCING "METHANE-CONTAINING GAS" TO NONFOSSIL WASTE MATERIALS "AT FARMS OR OTHER AGRICULTURAL FACILITIES, AND AT FACILITIES FOR THE FIRST RESTRICTIVE PROCESSING OF AGRICULTURAL PRODUCTS." (S.1220

SUBSTANTIALLY ADOPTS THE "METHANE-CONTAINING GAS" PROVISIONS OF S. 1305, S. 1939 AND H.R. 4078.)

REGRETTABLY, BECAUSE OF THE PRESS OF OTHER EVENTS, CONGRESS TOOK NO ACTION ON THOSE PROPOSED MEASURES IN 1982-1984.

III. CONCLUSION

THIS COMMITTEE TODAY HAS THE SPECIAL OPPORTUNITY TO ENTHUSIASTICALLY CONFIRM THE CLEAR AND LONG-STANDING CONGRESSIONAL INTENT TO QUALIFY ANAEROBIC DIGESTION EQUIPMENT FOR THE 10 PERCENT EITC AND, THUS, PROMOTE THE PRODUCTION AND DEVELOPMENT OF CRITICAL ALTERNATE ENERGY SOURCES. IT CAN SUPPORT S.1220 TO ACCOMPLISH THIS IMPORTANT RESULT.

A TAXPAYER ENGAGED IN AGRICULTURE USUALLY MUST SECURE THIRD-PARTY FINANCING IN ORDER TO INSTALL AN ANAEROBIC DIGESTER SYSTEM. THE APPLICATION OF THE EITC TO THIS SYSTEM MAKES THIRD-PARTY FINANCING POSSIBLE. WITHOUT THIS ENERGY CREDIT, THIS ALTERNATE ENERGY SOURCE WILL NOT BE UTILIZED TO ANY GREAT EXTENT.

THE SHORT TERM EFFECT ON GOVERNMENT REVENUES THROUGH THE USE OF THESE CREDITS BY THE ANAEROBIC DIGESTION INDUSTRY WILL BE MINIMAL. THE AVAILABILITY OF THESE ENERGY CREDITS FOR ANAEROBIC DIGESTER SYSTEMS WILL ENCOURAGE STRONG INVESTMENT INTO THE INDUSTRY. THUS, INVESTMENT-GENERATED INDUSTRY SALES WILL PROVIDE INCREASINGLY SIZABLE LONG-TERM TAXABLE INCOME FOR THE GOVERNMENT'S COFFERS.

THE ECONOMIC, ENVIRONMENTAL AND POLITICAL/NATIONAL SECURITY SIGNIFICANCE OF THE ANAEROBIC DIGESTION INDUSTRY TO THE CITIZENS OF THE UNITED STATES ARGUES IN FAVOR OF THE ENACTMENT OF S.1220. SIMILARLY, THE IDENTICAL CONGRESSIONAL OVERSIGHT THAT EXCLUDED ANAEROBIC DIGESTION FROM THE ENERGY INVESTMENT TAX CREDIT ALSO EXCLUDED ANOTHER IMPORTANT ALTERNATE ENERGY TECHNOLOGY, I.E., WOOD GASIFICATION, FROM THAT CREDIT. AS SUCH, A TECHNICAL CORRECTION TO THE TAX CODE TO ELIMINATE THE ADVERSE EFFECTS OF THIS OVERSIGHT IS CRITICALLY NECESSARY.

FOOTNOTES

1. S.1220, 99TH CONG., 1ST SESS. (1985).
2. WE COMPUTED THIS PROJECTED INSIGNIFICANT $2.1 MILLION REVENUE LOSS FIGURE ON $27 MILLION TOTAL SALES DURING THIS PERIOD AS FOLLOWS: (1986-10 PERCENT CREDIT X $5 MILLION IN SALES) + (1987 - 10 PERCENT X $10 MILLION IN SALES) + (1988 - 5 PERCENT X $12 MILLION IN SALES), OR $500,000 + $1,000,000 + $600,000 = $2.1 MILLION.
3. H.R. 2001, 99TH CONG., 1ST SESS. (1985).
4. SECTION 301 OF PUB. L. NO. 95-618 AMENDING 26 U.S.C. §§46, 48; H.R. CONF. REP. NO. 817, 96TH CONG., 2D SESS. 131-132 (1980) (CRUDE OIL WINDFALL PROFITS TAX ACT OF 1980).
5. SECTION 301 OF PUB. L. NO. 95-618 AMENDING 26 U.S.C. § 48; H.R. CONF. REP. NO. 817, SUPRA.
6. ID.
7. SECTION 221 OF PUB. L. NO. 96-223 AMENDING 26 U.S.C. § 46(A)(2)(C)(I); H.R. CONF. REP. NO. 817, SUPRA AT 132.
8. ID.
9. H.R. CONF. REP. NO. 817, SUPRA AT 132.
10 ID.
11. 26 U.S.C. § 48(L)(15)(B)(II).
12. ID. AT § 48(L)(15)(C).
13. H.R. 6131, 97TH CONG., 2D SESS. (1982).
14. S. 2766, 97TH CONG., 2D SESS. (1982).
15. H.R. 1876, 98TH CONG., 1ST SESS. (1983).
16. S. 1305, 98TH CONG., 1ST SESS. (1983).
17. H.R. 3072, 98TH CONG., 1ST SESS. (1983).
18. S. 1939, 98TH CONG., 1ST SESS. (1983).
19. H.R. 4078, 98TH CONG., 1ST SESS. (1983).

STATEMENT BY ANGUS DUNCAN, VICE PRESIDENT, LEGISLATIVE AFFAIRS AND GOVERNMENT RELATIONS, FLOWIND CORP., AND CHAIRMAN OF AMERICAN WIND ENERGY ASSOCIATION LEGISLATIVE COMMITTEE, PLEASANTON, CA

Mr. DUNCAN. Mr. Chairman, thank you, and thank you for your courteous remarks of introduction. I am as pleased to be here today as my father is to be home in Oregon at this point.

Mr. Chairman, let me begin by making the committee an offer it ought not to be able to refuse: This committee could, at a stroke: reduce the Federal budget deficit by some $15 to $30 billion annually; it could achieve real tax reform, not just a redistribution of subsidies among competing, mature energy technologies; it could provide the critical bridge to market competitiveness for wind and other adolescent energy technologies; it could provide for national energy security by developing new alternatives to foreign oil imports; and just incidentally, it could reduce the net environmental impact of energy production in this country.

By applying to all energy technologies the transition off Federal tax subsidies that is proposed for renewables and conservation in S. 1220, the bill introduced by your colleague Senator Hatfield, the committee could accomplish all of these things and more.

While this would still leave a hugh disproportion in Federal program subsidies to conventional, mature energy technologies, it would begin to restore balance to the energy marketplace.

Interestingly, a study conducted by the Rocky Mountain Institute concludes that these emerging renewable technologies, excluding hydro, already are producing twice as much energy per dollar of Federal subsidy as are conventional fossil-electric, and nuclear-electric technologies. So in the interests of equity, but much more in the interests of rational tax and energy policies, all of these technologies should be treated equally. And de minimus, this committee should enact the phase-down of energy tax credits as proposed in S. 1220 and leave in place the 5-year depreciation period for these rapidly evolving technologies.

Wind, Mr. Chairman, is perhaps the most dramatic success story among these technologies, the story that best validates the energy tax credits and the other incentives that this Congress is close to abandoning.

In 1980 there was no wind industry at all to speak of; by the end of the year, wind will represent some 2.5 percent of California's installed capacity and will supply nearly 1 percent of that State's energy needs, upward of a billion kilowatt hours a year. This equivalent of a nuclear plant will have been installed by an infant industry in one-third the time required to construct that nuclear plant. Equally important, the cost per kilowatt hour of energy produced by wind has dropped dramatically. PG&E estimates that the best turbines available today, which are far from the best that technology can produce, can generate electricity at a cost—excluding the effects of energy tax credits—comparable to that from their latest nuclear plant on line.

And the goal for this industry, the achievable goal according to the projections of the California Energy Commission, is the lowest cost source of electricity available to a utility by 1990.

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There have been growing pains along with this growth. At the risk of abusing a metaphor, adolescence is an awkward age for us as well. Teenagers are not as attractive as babies, and they are not as respectable as adults. Many of our earliest computers or automobiles; but as costs have come down, reliability and productivity have gone up dramatically.

I understand the committee has heard from former President Ford to the effect that wind energy is an unproductive tax ripoff, that the turbines never work. With all due respect to Mr. Ford, he is misinformed. The evidence, to the contrary, the overwhelming evidence of energy productivity has been compiled now and documented by utilities, the Department of Energy, the State of California, the Electric Power Research Institute, and many other qualified observers.

Specifically, Southern California Edison on June 28 announced that some 37 million kilowatt hours were produced by wind turbines in the Plam Springs area alone between January and March of this year, enough to power the air conditioners and the lighted tennis courts for about 12,000 residents of Palm Springs.

Mr. Ford also speaks of local environmental impacts, and there are such effects, as with any kind of development; but nearly always these have been mitigated to local satisfaction. And at the same time, wind is offsetting air pollution, acid rain, nuclear waste. Visual impacts of wind turbines should not be dismissed as unimportant, but they certainly should be kept in perspective.

Finally, Mr. Chairman, I would like to say a brief word for our industry on the concepts of tax simplification and tax reform.

We could support the reform package before you, or at least many elements of it, but we would support overall a tax reform package that, first, treats competing economic activities equitably and does not preserve tax preferences for some elements of an industry while stripping them away for others. We prefer a tax program that provides a transition period between old and new tax regimes for all economic activities, and we prefer a tax code that supports capital formation of new wealth and new jobs such as has been accomplished in the wind industry.

Thank you.

The CHAIRMAN. Thank you.

Mr. Vaughn.

[Mr. Duncan's written testimony follows:]

SUMMARY OF TESTIMONY

OF ANGUS DUNCAN

AMERICAN WIND ENERGY ASSOCIATION

1 IN THE INTERESTS OF RATIONAL ENERGY POLICY, REAL TAX REFORM, EQUITY AMONG COMPETING ENERGY TECHNOLOGIES, AND SIGNIFICANT REDUCTIONS IN THE BUDGET DEFICIT, THE CONGRESS SHOULD PHASE OUT ALL TAX SUBSIDIES TO ENERGY PRODUCERS OVER THE NEXT FIVE YEARS.

2. AT A MINIMUM, THIS COMMITTEE SHOULD INCORPORATE INTO ITS TAX BILL THE PHASE-DOWN OF ENERGY TAX CREDITS FOR RENEWABLES AND CONSERVATION PROVIDED FOR IN S 1220 AND HR 2001; AND IT SHOULD PRESERVE FIVE-YEAR DEPRECIATION FOR RAPIDLY EVOLVING TECHNOLOGIES SUCH AS WIND.

3. RENEWABLES (EXCLUDING HYDRO) ALREADY PRODUCE TWICE THE ENERGY PER DOLLAR OF FEDERAL SUBSIDY AS DO FOSSIL-ELECTRIC AND NUCLEAR-ELECTRIC TECHNOLOGIES.

4. WIND IN PARTICULAR HAS BEEN A DRAMATIC SUCCESS STORY, GROWING SINCE 1981 FROM INFANCY TO SOME 600 MEGAWATTS INSTALLED BY LAST YEAR THAT PRODUCED NEARLY 200 MILLION KILOWATT HOURS OF ELECTRICITY.

5. WIND ENERGY IS PROJECTED BY THE CALIFORNIA ENERGY COMMISSION TO BE THE LOWEST COST ENERGY RESOURCE -- EXCLUDING ENERGY TAX CREDITS -- AVAILABLE TO UTILITIES BY 1990.

6. WIND HAS HAD ITS GROWING PAINS -- FAULTY MACHINES, ENVIRONMENTAL ISSUES, A FEW SHADY DEVELOPERS -- BUT ITS SUCCESS IN SURMOUNTING THESE IS DOCUMENTED BY INDEPENDENT UTILITY AND GOVERNMENT OBSERVERS.

7. THE ENERGY TAX CREDITS HAVE LED TO REAL CAPITAL FORMATION IN WIND: A BILLION DOLLARS OF INVESTMENT, 3000 NEW DIRECT JOBS, MILLIONS IN LOCAL, STATE AND FEDERAL TAX RECEIPTS, A NEW EXPORT INDUSTRY.

Mr. Chairman and Members of the Committee:

My name is Angus Duncan, and I am Vice President of Legislative Affairs and Government Relations for FloWind Corporation, a manufacturer of wind electric turbines located in Kent, Washington. I am also Legislative Chairman of the American Wind Energy Association (AWEA), a national trade association for the wind energy industry which has over 100 corporate members including wind systems manufacturers, distributors and component suppliers.

Mr. Chairman, let me begin by making this Committee an offer it shouldn't be able to refuse.

This Committee could, at a stroke:

- o reduce the Federal budget deficit, over a three to five year transition period, by some $15 to $30 Billion dollars annually;
- o achieve real tax reform rather than just a redistribution of subsidies among competing, mature energy technologies;
- o provide the critical bridge to market competitiveness for wind and other adolescent technologies;

- ultimately, rationalize the energy marketplace by sharply reducing the distortions created by current tax policy;

- provide for national energy security by developing alternatives to foreign oil imports while slowing the uneconomic consumption of domestic oil and gas reserves;

- and just incidentally, reduce the net environmental impact of energy production in this country;

How could this be done?

By applying to all energy technologies the transition off Federal tax subsidies that is proposed -- for renewables and conservation -- in S 1220 and HR 2001.

While this would still leave a huge disproportion in Federal program subsidies to conventional energy, it would begin to restore a semblance of balance in the energy marketplace.

In fact, a defensible case can be made that wind and most other renewables, being emerging technologies, merit temporary assistance as they reach for the market. Energy forms such as coal, oil, gas and nuclear -- whose technologies are mature, or should be after decades of subsidies -- should be able to face market forces unassisted.

Yet Treasury II produces a directly contrary result.

Interestingly, a study conducted by the Rocky Mountain Institute concludes that renewable technologies, excluding hydro, already produce twice as much energy per dollar of Federal subsidy as conventional fossil-electric and nuclear electric technologies.

In the interests of equity, but more in the interests of rational tax and energy policies, all these technologies should be treated equally.

And, de minimus, this Committee should enact the phase-down of Energy Tax Credits as proposed in S 1220; and leave in place the five-year depreciation period for these rapidly evolving technologies.

Do we merit continued support?

In a word, yes.

Wind is perhaps the most dramatic success story among the new technologies; the story that best validates the Energy Tax Credits and other incentives this Congress is close to abandoning.

In 1980 there was no wind industry, only a few engineers with ideas, a little working capital, PURPA, and the energy tax credit. In the five years since, more than 600 megawatts of generating equipment have been installed. From the 10,000 kilowatt-hours of electricity produced in 1981--less than enough to serve two homes -- output has risen to 195 million kilowatt-hours last year -- enough to serve more than 30,000 homes, save 315,000 barrels of oil, and prevent nearly two million pounds of pollutants from entering the atmosphere.

Output in 1985 may approach a billion kWh.

Equally important, costs per kilowatt-hour produced have dropped dramatically in these five years, and reliability has improved in parallel. Pacific Gas & Electric Company estimates that the best turbines available today can produce electricity at a cost -- excluding the effects of Energy Tax Credits -- comparable to that from their latest nuclear plant on line.

By the end of this year, we estimate wind will represent some 2.5% of California's installed capacity, and will supply nearly 1% of the state's energy needs. This equivalent of a nuclear plant will have been accomplished by an infant industry in one-third the time required to construct that nuclear plant.

California is incubator, but wind development is taking place elsewhere in US also - in New York, New England, Oregon, Hawaii, Oklahoma, Texas, Montana, and elsewhere.

Wind has passed now from infancy to adolescence. But it is not a mature, proven, competitive technology -- not yet. Costs must, can and will be further reduced, to compete with conventional resources that will still enjoy tax preference and other subsidies.

The goal -- the achievable goal, according to the projections of the California Energy Commission -- is: the lowest cost source of electricity, along with hydro, available to a utility by 1990.

The near-term economic market for wind technology -- according to the Electric Power Research Institute (EPRI) -- is 22,000 MW in the United States alone. The potential for export earnings from equipment sales and technology transfer is greater still.

Along with growth there have been growing pains, but one by one the industry's problems are being resolved. At the risk of abusing the metaphor, adolescence is an awkward age. Teenagers are not as attractive as babies; they are not as respectable as adults. This has proven the case with wind energy as well.

Many of the earliest turbines didn't work very well -- any more than did the earliest computers or automobiles. But as costs have come down, reliability has come up. EPRI estimates average turbine availability today in the 75% to 95% range, up dramatically from only two or three years ago. Several companies, including FloWind, have consistently achieved availabilities in excess of 95%.

I understand the Committee has heard from former President Ford that wind energy is an unproductive tax ripoff, that the turbines never work. These observations appear based on a not-too-scientific visual survey of wind farms in the Palm Springs area.

I have to say, with all due respect to Mr. Ford, that he is misinformed. The evidence to the contrary -- the overwhelming evidence of energy productivity -- has been compiled by Pacific Gas & Electric, the State of California, the Electric Power Research Institute and other qualified observers, all independent of and often critical of the wind industry.

Specifically, Southern California Edison reported, on June 28, 1985, that some 37 million kWh were produced by wind turbines in the Palm Springs/San Gorgonio Pass area between January and March of this year -- enough to power the air conditioners and lighted tennis courts for about 12,000 residents of Palm Springs. This represents, in a short three months, two times the output of the preceding three years in the Pass.

All the figures I am submitting today were compiled by agencies independent of our industry. I have conditioned our testimony in this way precisely because our credibility is at stake -- and is often unfairly challenged by anecdotal evidence such as Mr. Ford's letter.

Mr. Ford also speaks of local environmental effects, and there are such effects, as with any development, whether highway or shopping center or power plant. Nearly always the effects of wind development have been mitigated to local satisfaction. At the same time, wind is offsetting other, larger environmental problems, including air pollution, acid rain, and nuclear waste. Visual impacts of wind turbines should not be dismissed as unimportant, but they should be kept in perspective.

Finally, there have been isolated instances of abusive tax shelter activity. The government has the legal tools to redress these, including recapture of tax credits, and penalties. The American Wind Energy Association, through its Ethics Committee, actively cooperates with the IRS to identify and root out these cases, for they do great damage to us.

Critics of our industry have focused on these isolated cases rather than our successes. But I need not instruct Members of Congress how easy it is for an opponent to unfairly generalize from a specific -- a Member's floor attendance record for example

The Tax Credits have led to real capital formation

Five years ago, the wind industry did not exist. Today, it is a billion-dollar business that has produced more than 3,000 direct jobs with 40 wind companies across the United States, and millions of dollars in local, state and Federal tax receipts. The Energy Credits were not the sole cause of this growth, but they have been critical.

The question now before the Congress is whether to assure the long-term health of this industry -- and its bright prospects for export earnings -- by providing the transition period called for by H. R. 2001 and by 122 of your House colleagues.

Better to have these new technologies in place, with their short construction lead times and modularity, than face another energy crisis unprepared when oil supplies again grow short and surplus utility generating capactiy turns again to shortage.

Finally, I would like to say a word on behalf of our industry about the concepts of tax simplification and tax reform. In a word, we are for it. We are for it even though our ox too will sooner or later be gored.

The tax reform package we could support includes much of what you have before you, but it would also adhere to the following:

1. It would treat competing economic activities equitably. And it would certainly not preserve tax preferences for oil and gas while stripping away those for emerging renewable energy technologies.

2. It would provide a transition period between old and new tax regimes for all economic activity that would be disrupted by sudden tax code change, whether energy or real estate or smokestack industry.

3. It would acknowledge that the tax code will always play a role in capital formation, whether to hasten or hinder it; and it would employ the code to encourage the creation of new wealth and new jobs for the community at large.

Thank you

03520/12

(INFORMATION ON WIND ENERGY'S RECENT GROWTH IS ATTACHED.)

NEWS RELEASE

American Wind Energy Association

June 14, 1985
FOR RELEASE: Immediate

Contact: Joan Moody
703/370-8368

APRIL IS RECORD MONTH FOR WIND POWER

California's booming wind energy industry set a new all-time production record in April, 1985, with total output of 51.5 million kilowatt-hours (kWh) of electricity, according to the American Wind Energy Association (AWEA).

April's output shattered the previous total for a single month of 30.5 million kWh, set in July of last year, AWEA said. The trade group said the April high should be short-lived, however, since northern California windfarms are now entering the high wind season.

Figures obtained by AWEA from California's two largest utilities, Pacific Gas & Electric Co. (PG&E) and Southern California Edison Co. (SCE) show wind turbines generated 89.2 million kWh through April of this year, nearly triple the 30.2 million produced in the same period of 1984 and a 16-fold increase over 1983.

AWEA Executive Director Tom Gray said the new production numbers reflect both the number of wind machines in place, which more than doubled last year, and improving turbine performance.

"Wind power is one of the major successes from America's drive of the past few years to develop new sources of domestic energy," he said, adding, "No new technology has produced amounts of electric power comparable to this since nuclear energy got started in the 1950's."

There is enough wind energy available in the United States to provide more than a trillion kWh annually, according to a General Electric study. That amount of electricity is equivalent to 13.6% of projected U.S. energy demand in the year 2000.

AWEA, founded in 1974, is a national trade association for the wind energy industry, with over 100 corporate members, including wind systems manufacturers, distributors and component suppliers.

Graphs illustrating wind energy's recent growth are attached.

American Wind Energy Association
1516 King Street
Alexandria, VA 22314
(703) 684-5196

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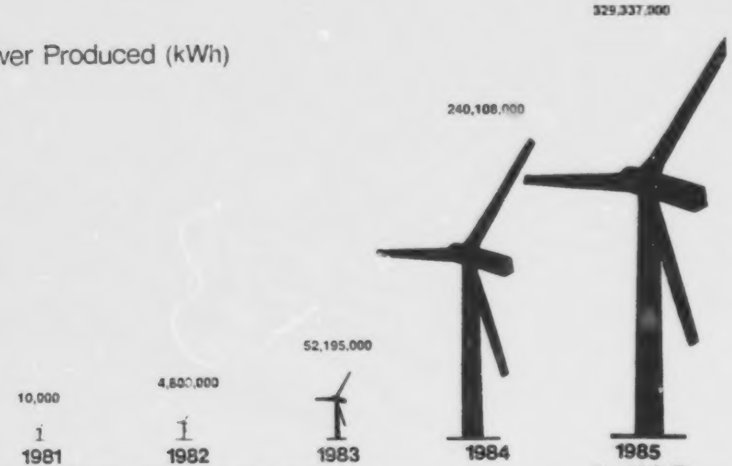
WIND ENERGY—IT'S WORKING

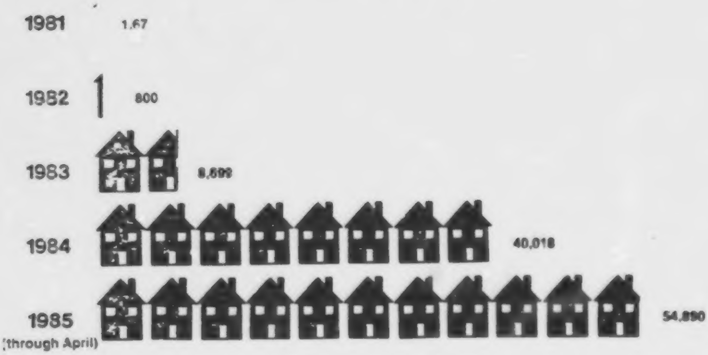
Vol 1, #2, June, 1985

Power Produced (kWh)



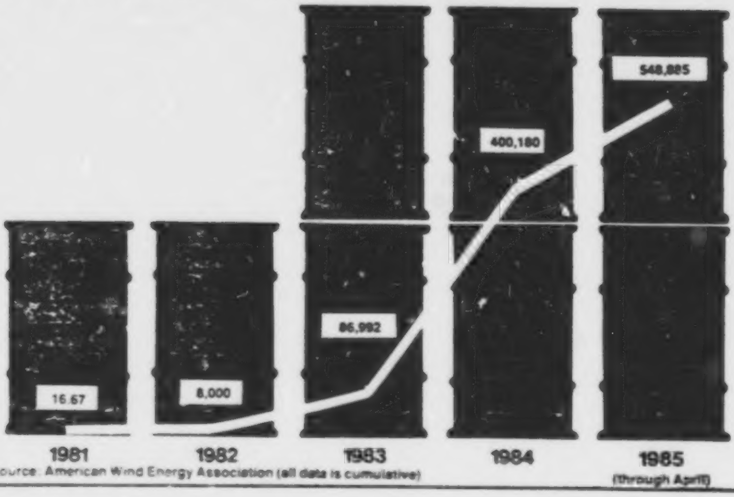
source: California Energy Commission (all data is cumulative)

Homes Served (average annual household electrical needs equivalen



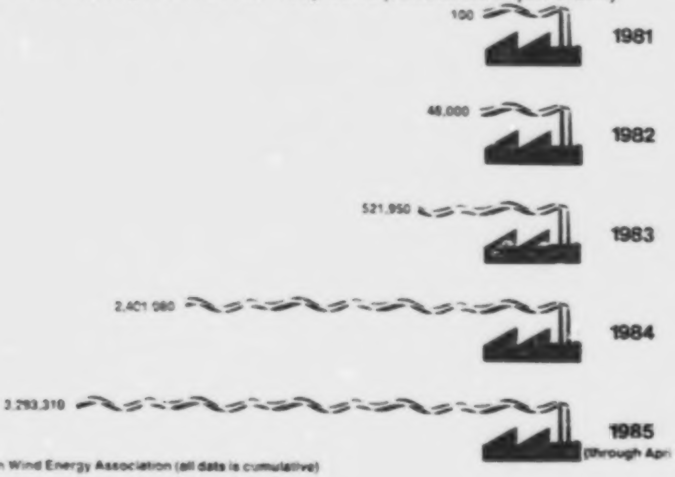
scurce: American Wind Energy Association (all data is cumulative)

Oil Saved (barrels of oil equivalent)



source: American Wind Energy Association (all data is cumulative)

Pollution Prevented (pounds of atmospheric pollutants equivalent)



source: American Wind Energy Association (all data is cumulative)

STATEMENT BY ERIC VAUGHN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, RENEWABLE FUELS ASSOCIATION, WASHINGTON, DC, ACCOMPANIED BY ROBERT P. KENNEL, VICE PRESIDENT, ULTRA SYSTEMS INC., IRVINE, CA

Mr. VAUGHN. Mr. Chairman, thank you very much.

My name is Eric Vaughn. I am the president of the Renewable Fuels Association, the national trade association for the domestic fuel ethanol industry. I am joined here today by one of the directors of the renewable fuels association, Mr. Robert Kennel, who is an executive vice president with Ultra Systems, one of the Nation's leading developers of small energy-producing facilities around the country. Mr. Kennel is also Secretary of the National Wood Energy Association, and he is also here today, representing the newest ethanol facility in the Nation, the Dawn Enterprises Ethanol facility in Walhalla, ND, that will begin producing ethanol later this summer. The Walhalla facility is interesting in that it will be the largest single barley user in the world and will consume 6 percent of the North Dakota State barley crop—energy production, energy security, and agricultural security in one facility.

I would ask permission, if I could, Mr. Chairman, to have my written remarks submitted for the record. I would like to commend you and this committee for providing the alternative energy industry and the Renewable Fuels Association with this opportunity to testify before your committee.

We would like to comment on two specific provisions included in the President's tax reform proposal as submitted to the Congress several weeks ago. The first would be the provision to eliminate at the end of this year the energy investment tax credits for renewable energy investments. The domestic fuel ethanol industry supports a 3-year extension and a phaseout of these credits. We are witnessing, this year alone, four new ethanol facilities coming on line as a direct result of the availability of energy investment tax credits. Without those credits and without that investment incentive, we will not see future growth in this industry. The domestic fuel ethanol industry views the EITC's as representing future growth to enable us to meet our full energy production potential.

The second item in the President's tax reform proposal affecting alcohol fuels is the specific provision to eliminate, at the end of 1985—7 years ahead of schedule—the ethanol excise tax exemption from the tax on motor fuels.

The excise tax exemption has been in place now for 5 years. As many of the members of this committee know so well, in those 5 years the industry has responded very well to the incentive provided by the excise tax exemption in place. This year alone, 1985, the domestic ethanol industry will produce more than 550 million gallons of ethanol. That is enough ethanol to blend with more than 5.6 billion gallons of gasoline—roughly 5.5 percent of the total gasoline consumed in the country. We are going to back out, with just that ethanol alone, $500 million worth of imported gasoline, enhancing our Nation's energy security.

In addition, as a result of domestic ethanol production this year, we will be able to, consume more than 210 million bushels of American grain, adding $750 million to farm income, and reducing

Federal farm program costs by roughly $150 to $200 million this year alone. Domestic ethanol production has benefited our Nation's energy security and strengthened our agricultural economy.

As a side benefit, something we hadn't intended in the late 1970's and early in 1980, we have also determined that ethanol is not only a fuel extender but an excellent octane enhancer, and a superior replacement for lead in gasoline.

The ethanol industry, represented by our association, stands at 100 production facilities that are currently producing ethanol around the United States, from a variety of renewable feedstocks. At a time when our Nation's farmers have very, very little to cheer about and very little to be happy about, ethanol production presents one of the strongest and most impressive new market alternatives at a time when export markets are in decline and the abandonment of farms and collapse of the farming sector in many regions of the Nation is the only way out of debt.

The National Corn Growers Association has put forth a proposal, between now and 1990, to expand ethanol production roughly fivefold, from 500 million gallons of ethanol today to 2.5 billion gallons by 1990, consuming some 1 billion bushels of grain to produce 2.5 billion gallons of ethanol, enough ethanol to back out roughly half of our entire annual gasoline import demand, according to a recent CSIS study.

In the summer of 1984, Senators Durenberger, Exon, and former Senator Percy, received a GAO study that was requested 18 months earlier and intended to review the ethanol exise tax exemption to determine whether or not it should remain in place through 1992. We were pleased by the findings of that report that, yes, in fact sufficient evidence exists to maintain the ethanol excise tax exemption in place through 1992, benefiting our energy security, our energy production capacity, and our farming sector.

Again. Mr. Chairman, thank you very much for the opportunity to be here today.

The CHAIRMAN. Thank you very much.

[Mr. Vaughn's written testimony follows:]

REMARKS OF
ERIC VAUGHN
PRESIDENT, RENEWABLE FUELS ASSOCIATION

BEFORE THE SENATE COMMITTEE ON FINANCE

WASHINGTON, D.C.
July 17, 1985

Thank you, Mr. Chairman. On behalf of the membership of the Renewable Fuels Association, and the domestic fuel ethanol industry it represents, I would like to commend you and your Committee for providing this opportunity to submit views on the impact the proposed Reagan Administration tax reform plan will have on U.S. energy production in general and the domestic fuel ethanol industry in specific.

The Renewable Fuels Association strongly opposes the Administration's proposals to terminate seven years ahead of schedule the six cent federal excise tax exemption for ethanol blended fuels ("gasohol") and to eliminate the Energy Investment Tax Credits (EITCs) as set forth in the President's Tax Proposal to the Congress for Fairness, Growth and Simplicity. The Association's opposition to these initiatives is total and includes unqualified opposition to the so-called "transition rules" designed to "protect" those projects completed and producing by January 1, 1986. We are convinced that the facts clearly demonstrate this proposal to be ill-advised, and that its enactment would have ramifications that run counter to the Nation's budgetary, agricultural, economic, and energy security goals. The ethanol excise tax exemption and the Energy Investment Tax Credits are not "questionable energy policies" or "excessive" and "obsolete" as stated in the President's tax reform proposal. In fact, they are important and effective investments in our nation's energy future and provide stability and growth in the agricultural sector of our economy.

To highlight the importance and value of the domestic ethanol fuels industry the 1984 GAO Report, "Importance and Impact of Federal Alcohol Fuel Tax Incentives", concluded, "there is sufficient justification to continue the (ethanol fuel) incentives until their currently scheduled 1992 expiration date."

In addition, the GAO Report noted that "the domestic ethanol industry saved the federal government more than it cost." Counting the outlays stemming from the federal excise tax exemption and the 10% energy investment tax credit, the GAO found that special ethanol tax incentives in 1982 cost the Treasury about $114 million. They then found that fuel ethanol production and use contributed to improving the 1982 federal revenue balance in two ways: 1) by reducing agricultural programs outlays; and 2) by generating fuel ethanol import duties. In all, the GAO found that the fuel ethanol industry reduced agricultural program outlays by a total of $129.2 million, and generated new revenues from the duty by a total of $10 million, a total of $139.2 million which offsets the $114 million revenue loss by over $25 million. While the report notes that this impact was small, it should be emphasized that at the very least it proves that the fuel ethanol industry is at worst a "wash" in terms of federal budgetary impacts. We have attached a summary of the GAO Report findings.

The alcohol fuels industry joins with the rest of the alternative energy community in thanking the members of this Committee for their clear and often repeated statements of support for the excise tax exemption for ethanol blended fuels and the retention of the energy investment tax credits and their commitment to a strong and growing domestic fuel ethanol industry. I would like to focus my remarks on the key elements of the Administration's rationale in support of its specific ethanol fuels tax reform proposal.

I. "CRUDE OIL PRICES HAVE BEEN DECONTROLLED...AS A RESULT ENERGY TAX CREDITS ARE NO LONGER NEEDED."

This argument does not withstand scrutiny. While the decontrol of crude oil prices was necessary to improve various energy alternatives' capabilities to compete with traditional energy forms, it is dangerously simplistic to base a national energy policy on the premise that decontrol alone is sufficient to bring about the allocation of capital needed to stimulate alternative energy commercialization in a timely and orderly way. The administration's position is predicated on its contention that energy decisions are made just like any other investment decision, simply on the basis of the operation of "free market forces" and relatively unmanipulated supply and demand stimulus.

Nothing could be further from the truth. The production and marketing of energy in the United States is heavily subsidized and directed by public policy decisions. Foreign energy production and pricing decisions are not made on the basis of "free market forces" alone and most often reflect the interests of the producing country to manipulate the energy marketplace. In the case of ethanol production, the primary feedstock in the U.S., corn, is subsidized through various federal farm policies which determine production levels. For example in 1983, the Payment in Kind (PIK) program resulted in a direct outlay for farm supports of $10 billion, which artificially raised the price of corn, cost thousands of jobs, resulted in no new economic investments and produced no gains in agricultural productivity.

The unfortunate upshot of these non "free market" forces at work is that the financial community is understandably reticent about committing the huge sums of money necessary to commercialize energy alternatives without incentives like those offered by the ethanol excise tax exemption and the energy investment tax credits. With the ethanol excise tax incentive in place for the past five years, more than $1.5 billion in private sector funds have been invested in the construction of over 100 ethanol production facilities.

The 1984 GAO Report cited earlier dealt with the issue of fuel ethanol tax expenditures relative to other energy forms. It first noted in response to the Administrations's contention that the fuel ethanol incentives "distort the marketplace" that the extensive incentives long provided to the conventional energy industry make it "unclear that the fuel ethanol subsidy unduly distorts the market." It went on to note that the "energy marketplace is not now, nor perhaps has it ever been, free from government intervention" and that "morever, because of the floor effectively placed under corn prices by federal agricultural support programs, the fuel ethanol industry has dealt with government intervention not faced by conventional industries." The report noted that conventional energy technologies have received over $100 billion of tax expenditures since 1950, and that they will continue to receive the vast majority of federal energy tax expenditures over the next 5 years.

Retention of the ethanol excise tax exemption and the EITCs for domestic fuel ethanol production is justified as particularly effective means of continuing the needed "partnership of the public and private sectors" that must exist if our Nation is to end its dangerous dependence on foreign energy and deal effectively with our chronic surpluses of agricultural commodities. Energy is inarguably a unique commodity. This is largely due to the extreme volatility of world oil markets, as well as the political instability of most of the major oil producing nations, especially those in the Persian Gulf. In recent months we have seen the pendulum swing to lower petroleum prices due to a temporary oversupply situation in world markets. But the failure of the United States to take advantage of the current respite from oil supply interruption and escalating prices by increasing our own indigenous production capabilities could very well prove to be even more disastrous the next time around.

II. "WITH AN ALCOHOL FUEL CREDIT AT 60 CENTS PER GALLON, THE FEDERAL GOVERNMENT IS PAYNG A SUBSIDY OF $25.20 IN ORDER TO SAVE A BARREL OF OIL CURRENTLY VALUED AT UNDER $30."

The Administration's tax reform plan inaccurately claims that the "subsidy" for ethanol is comparable to the cost of crude oil, when, in fact, ethanol is a high octane, finished gasoline additive. Ethanol displaces finished gasoline valued at $.90 per gallon, thus a barrel of ethanol, with a federal excise tax exemption of $25.20 is comparable to gasoline valued at $38.00. In addition, each gallon of ethanol actually displaces 1.2 gallons of gasoline because of the high octane value of ethanol. A 1984 GAO study on ethanol determined that due to ethanol's high octane value and its ability to substitute for higher cost/lower

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product yield reforming of crude oil, ethanol replaces gasoline on a 1:1.2 ratio.

Current law provides a six cent exemption from the nine cent federal excise tax on every gallon of ethanol enhanced gasoline (90% gasoline/10% ethanol). This exemption results in an excise tax revenue loss of $.60 per gallon of ethanol produced. However, the Administration's tax proposal also fails to make any reference to the valuable economic impacts to numerous sectors of our economy from ethanol production. In 1985 alone the domestic fuel ethanol industry will produce and sell an estimated 555 million gallons of high grade fuel ethanol. The federal excise tax exemption for domestically produced ethanol in 1985 will be approximately $330 million (555 million gallons x $.60 = $330). The Joint Tax Committee has determined that excise tax credits and exemptions create an increase in income tax liability thus reducing the net loss of revenues to the government by 33% or roughly $110 million for the ethanol excise tax exemption in 1985. Thus, the net federal investment in domestic fuel ethanol production will be about $220 million in 1985.

A federal government investment of roughly $220 million in domestic ethanol production in 1985 will yield tremendous results across our economy, including:

- $471 million in reduced costs of gasoline imports (555 million gallons x $.85 = $471 million)
- $650 million reduction in farm program costs which includes 200 million fewer bushels requiring government purchases (200 million bushels x $.75 [storage, handling, interest] = $150 million) and 200 million fewer bushels purchased by the government (200 million bushels x $2.50 = $500 million
- $750 million in increased farm income, the ethanol demand for corn has raised the value corn 10 cents per bushel. (7.5 billion bushels of corn x $.10 = $750 million)
- $100 million in increased agricultural exports.
- 30,000 jobs directly attributed to the domestic fuel ethanol industry.

From an investment of $220 million this year, the government, taxpayers and farmers will realise a return on that investment of roughly $1.9 billion in reduced farm program costs, increased farm income, increased exports and reduced energy imports.

III. "ENERGY TAX CREDITS DISTORT THE ALLOCATION OF RESOURCES AND DIVERT WORKERS AND CAPITAL FROM MORE PRODUCTIVE USES."

The domestic fuel alcohol industry is an excellent example of an industry that applies value-added processing to abundant domestic resources in a way that increases economic activity, creates jobs, and increases federal, state, and local tax bases. By utilizing such abundant, renewable resources as grains, urban and agricultural wastes, and forestry residues, U.S alcohol fuel producers not only produce a high grade liquid fuel that can "back out" foreign oil imports on more than one-for-one basis, but they also "refine" such feedstocks into more useful products which can either be exported or used domestically. The economy receives a much needed stimulus, and the ability of the U.S. to cushion, or eventually avoid altogether, the heavy costs of the OPEC "oil tax" is advanced.

We exported around $8.7 billion worth of corn last year. If even an additional 10 percent of that corn was processed by the wet corn milling industry into products for export, it would generate an estimated $7.734 billion more in business activity, creating 165,300 more jobs and increasing personal income by $1.713 billion. (53 percent of current fuel alcohol production capacity is accounted for by corn wet milling operations.)

There is a growing body of evidence to support the contention of fuel alcohol promoters that the industry's development has a quantifiable, and significantly positive, impact on the Nation's general economy. Numerous studies completed over the past several years by highly respected research organizations, consulting firms, and governmental entities have concluded that the economic benefits to the Nation from an aggressive national fuel alcohol industry are significant.

IV. "LEAVING IN PLACE A 'BLENDER'S TAX CREDIT' WILL PROTECT THOSE WHO INVESTED IN ETHANOL PLANTS BECAUSE OF THE EXCISE TAX EXEMPTION INCENTIVES."

The Administration's "transition rule", that is, repeal of the excise tax exemption seven years before it is scheduled to go out of existence but leaving in place a "blender's tax credit," shows a serious lack of understanding of just how these two very different incentives operate. The blender's tax credit simply does not work -- not one drop of ethanol produced in the U.S. today takes advantage of the blender's tax credit.

The development of any new industry, especially one that finds itself attempting to penetrate the established energy marketplace, cannot happen overnight. In promising the alcohol fuels industry the excise tax exemption until 1992 in the 1980 Crude Oil Windfall Profits Tax Act, the Congress realized the importance of allowing sufficient lead time and stability if the needed private sector participation was to be encouraged in face of the considerable risks. Similarly, the use of alcohol as an octane enhancer at the refinery level also offers the Nation considerable advantages in terms of improved engine performance, reduced crude loss at the refinery, and reduced health and environmental hazards relative to other alternatives.

The fact that the alcohol fuels industry has in only a few short years demonstrated its dependability, feasibility, economic value, and compatibility is important not only from the perspective of the significant economic benefits it can provide, but also the very real national security potential it offers to a Nation still dangerously dependent on unstable foreign governments for several million barrels per day of its oil. In fact, in 1984 the U.S. imported more than one third of its petroleum demand. In the event of a major interruption, the alcohol fuels industry stands alone in its ability to quickly bring on-line significant quantities of high-grade liquid fuel. The fuel alcohol industry would be extremely valuable in ensuring that the Nation's agricultural sector would have enough fuel to meet national food and fiber requirements. The industry is in fact one of the cheapest energy "insurance policies" we as a nation could have in place to deal with the demand for liquid fuel alternatives to unstable foreign crude oil supplies.

V. "ALCOHOL FUEL PRODUCTION FROM EXISTING PLANTS IS LIKELY TO BE DECREASED ONLY SLIGHTLY BY THE PROPOSED PHASE OUT OF THE ALCOHOL FUEL TAX INCENTIVES."

This statement again reveals the Administration's misperception of the alcohol fuels industry, and of the serious ramifications of its proposal on it. In every case, whether it be existing producers with a total of hundreds of millions of gallons of production capacity on line, or prospective producers who have already risked hundreds of thousands and even millions of dollars in preparing their projects, the answer is the same: the repeal of the alcohol fuel excise tax exemption will mean the death of these projects and the loss of these investments.

Should the Congress adopt the Administration's alcohol fuels tax incentives there will be no growth, no new construction and no increase in ethanol production. In addition, we estimate more than 60 percent of the domestic industry capacity will shut down at the end of the current year (when the Administration plans to end the alcohol fuels excise tax exemption seven years ahead of schedule) and the balance of the industry will be out of the ethanol production business by the end of 1986.

VI. "CURRENT LAW TREATMENT OF THE OIL AND GAS INDUSTRY CAUSES MORE RESOURCES TO BE ALLOCATED TO ENERGY DEVELOPMENT THAN UNDER A TOTALLY NEUTRAL SYSTEM. THIS TREATMENT HAS BEEN MAINTAINED BECAUSE OF A CONCERN FOR NATIONAL SECURITY THAT RECOGNIZES THE IMPORTANCE OF READILY ACCESSIBLE DOMESTIC SOURCES OF OIL AND GAS AND DECREASED RELIANCE ON UNRELIABLE FOREIGN SOURCES. ACCORDINGLY, THE PRESIDENT'S PLAN FOR TAX REFORM CAREFULLY BALANCES THE PRINCIPLE OF ECONOMIC NEUTRALITY AND

FAIRNESS AGAINST THE NEED TO RETAIN INCENTIVES FOR EXPLORATION AND DEVELOPMENT OF ENERGY RESOURCES."

As with any other liquid fuel alternative that can be expected in the future, fuel ethanol will not offer a panacea in terms of national security. However, it does offer a substantial contribution, not only by lessening the nation's dependence on unstable supplies of foreign oil, but also by doing so in a way that disperses production facilities around the country, rather than centralizing them as is the case with more capital intensive technologies such as nuclear or oil shale. In addition, these fuel ethanol plant sites are more than likely to be in the rural areas of the country, which are especially vunerable to oil supply disruptions because they sit at the "end of the pipeline" as a result of major oil companies pulling out of rural areas, and the remaining fuel suppliers in those areas being almost exclusively dependent upon the world oil spot market for fuel.

It should also be noted that, in terms of displacement of oil imports, fuel ethanol has a very significant potential. For example, when viewed against the backdrop of U.S. finished motor gasoline imports, which were roughly 90 million barrels in 1984 and are on the rise, the fuel ethanol industry could easily be expected to attain production levels capable of displacing at least 50%, if not all, of that amount. In 1984, U.S. fuel ethanol production exceeded 10 million barrels. A level of production consistent with the National Corn Growers Association's target of 1 billion bushels of corn into fuel ethanol by 1990 would mean a five-fold increase in production, or more than 50% displacment of U.S. finished gasoline imports. This is an appropriate way to measure fuel ethanol displacement capabilities for another reason, in that it is more accurate to compare fuel ethanol's characteristics with finished motor gasoline than it is with crude oil. This is because ethanol is already "refined" and is a high value, 130 octane number product more comparable to toluene or benzene. On the other hand, imported oil is at least 50% "low value" products such as napthas and resids, and up to 10-20% of it is consumed in the refining process itself. Consequently, to compare the value of high value anhydrous fuel ethanol with $28.00/barrel unfinished crude oil is not relevant; the fuel ethanol should be compared at least to the imported finished motor gasoline which now stands at roughly $38.00/barrel.

Another consideration of fuel ethanol's national security dimension is the significant potential that exists for the creation of a Strategic Alcohol Fuel Reserve (SAFURE) that, over time, could be built up from surplus agricultural commodities to the existing Strategic Petroleum Reserve (SPRO). In the recent GAO analysis, the SAFURE concept was carefully analyzed and the conclusion was that, under certain conditions, a SAFURE program was not only technically feasible, but also could be cheaper than existing farm program costs. On page 46 of the report, it states "we estimate SAFURE would be between $1.16 and $1.60 (per bushel) cheaper that existing program costs when the revenue from government corn sales is not considered." The GAO analysis recommended that the SAFURE concept had sufficient merit to warrant more precise data and closer scrutiny before a fianl decision was made.

The processing of an average of 100 million bushels of surplus grain each year on a competitive bid basis by existing private sector fuel ethanol facilities with surplus capacity could produce enough ethanol over ten years to equal 2.5 billion gallons of ethanol, or roughly 60 million barrels (a little less than 10 percent of the total SPRO target). Obviously, such an approach does offer a very substantial national security benefit. In addition, the implementation of such a program would have an advantage over exclusive reliance on the SPRO, since the fuel ethanol industry then in place would be an ongoing, renewable source of liquid fuel supplies even after the SAFURE were tapped in the event of an interruption, unlike the case with a SPRO.

SUMMARY:

The domestic fuel ethanol industry has committed more than $1.5 billion of private sector resources to alcohol fuels projects in a good-faith response to the appeal of the Congress and the Federal government to deal effectively with our national objective of energy independence and a a way to relieve the pressure on our agricultural sector form chronic grain surpluses. Not only are huge amounts of private funds at risk in these projects as a result of past government assurances, but also hundreds of millions of dollars of federal funds in loan guarantee and cooperative commitments spread out over numerous projects that will certainly collapse if the excise tax is repealed. There is no question that the rejection of the Administration's tax reform proposal to eliminate the federal excise tax exemption for ethanol fuels at the end of 1985 by the Senate Finance Committee will prevent not only the loss of these projects, but also the loss of nearly two billion dollars in public and private funds committed to them. In that very real sense, your decision on this particular proposal will have ramifications that go far beyond individual alternative energy projects. It will also affect the success of our efforts to deal effectively with the serious economic problems facing our nation's farmers, and help reduce our dependence on imported energy.

Mr. Chairman, the Renewable Fuels Association strongly believes the Administration's proposal to eliminate the federal excise tax exemption seven years before its scheduled expiration date would incur significant budgetary, economic, agricultural and energy security costs. We further believe the Administration's alcohol fuels tax reform proposal should be rejected in its entirety. We also ask that the Committee reject the proposal as quickly and emphatically as possible, so that all uncertainty can be removed for the financial community. By

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taking this action we can also continue the effort of reducing U.S. dependence on unstable foreign oil supplies and providing our farmers with expanding cash markets for their produce.

ETHANOL INDUSTRY OVERVIEW.

The domestic fuel ethanol industry strongly believes that after the first six years of the ethanol industry's commercial development, there is sufficient evidence of its effectiveness and impact on various sectors of our economy for the Congress to make an informed judgement on its contributions to national objectives.

Any evaluation of the U.S. fuel ethanol industry is necessarily complicated by the fact that it is an exceptionally complex industry, which combines many different dimensions and crosscuts a variety of interests. The failure to accurately identify all of the components of fuel ethanol production and use, and to fully measure the many benefits that come together in a unique way, would mean substantially understating the industry's value. At a time when the Congress is confronted with the increasingly difficult challenge of deciding what is or is not cost effective for the taxpayer, it is especially important that the Senate Finance Committee has access to all the information regarding how fuel ethanol impacts on the many different areas of other Committees' jurisdiction: agriculture; energy; environment and health; refinery and transportation policy; R&D; and national security, just to name a few. The fuel ethanol industry is very confident that the record built during its first six years of commercial development will withstand this rigorous cost/benefit assessment, and welcomes the opportunity to make known its views to the record.

I would like to focus on what the domestic fuel ethanol industry regards as the four major dimensions of fuel ethanol's impact on the economy and federal budget. I believe it is not an overstatement to claim that fuel ethanol production and use is a unique activity and that is best best demonstrated by evaluating its agricultural; energy; environmental/health; and economic development impacts.

I. AGRICULTURAL IMPACTS. Unlike any other liquid fuel alternative available in the forseeable future, fuel ethanol is uniquely derived from a wide range of renewable feedstocks. Today, U.S. fuel ethanol production technology utilizes such diverse feedstocks as grain, cheese whey, citrus wastes, and forestry residues. However, by far the predominant feedstock used by the industry's 80-plus production facilities is corn. As such, the U.S. fuel ethanol industry represents an already important--and major--new domestic outlet for our nation's corn producers.

Ethanol's agricultural benefits are many; however, I would briefly like to cite three of its primary benefits: (1) fuel ethanol provides a desperately needed stable domestic outlet for U.S. agricultural production at a time when conventional markets, including export markets are stagnating or even declining; (2) ethanol not only provides a new outlet for America's most important commodity export -- grain -- but also adds value to it. The ethanol manufacturing industry helps the U.S. shift away from simply becoming a bulk exporter of raw commodities, while allowing for the creation of jobs and investments in the U.S. which otherwise might be going overseas. These ripple effects help to strengthen the currently depressed agricultural sector, which accounts for 25% of the U.S. GNP. And (3) it establishes the foundation for a shift away from policies that achieve supply/demand balances through non-productive land idling, to policies dictated by a strong domestic market for U.S. grain. This "market enhanced" approach benefits farmers, consumers,, and taxpayers and should be a top priority for agricultural policymakers.

I would like to briefly respond to two popular misconceptions about fuel ethanol's agricultural impacts: (1) contrary to the contentions of its detractors, fuel ethanol can simultaneously benefit farmers, consumers, and taxpayers; and (2) there is not a "food vs. fuel" tradeoff. Due to ethanol's demand side stimulus, commodity prices can be increased over time in a way that substantially increases net farm income, reduces taxpayer exposure, and yet has a negligible impact on the consumer's food bill. As a 1984 GAO analysis of the fuel ethanol industry found, for instance, a doubling of the current industry to one billion gallons of ethanol annually would mean an increase in net farm income of over $3.5 billion. As a result of the additional 400 million bushels of corn disappearance, prices would rise 25-40¢ a bushel, thus significantly reducing government deficiency payments to producers (even a few cent increase that lifts the market price over the loan rate, times the number of bushels of eligible corn production, would save taxpayers hundreds of millions of dollars), loan supports, and surplus storage costs. And finally, because the corn itself is such a small percentage of net food costs to the consumer (frequently, 3-5%), recent studies have found that ethanol production from corn alone would have to increase to at least 3 billion gallons annually before food prices would be significantly affected.

The "food vs. fuel" issue has, for all practical purposes, been totally discredited. The starch alone in the renewable feedstock is transformed into a valuable liquid fuel and octane enhancer, and the protein, vitamins, and minerals are transformed into a more easily transported and stored feed material. The apparent competition between food and fuel is based on the assumption that any crop used to produce significant amounts of ethanol is entirely diverted from the production of food. However, the chemical requirements of supplying food to people and supplying fuel to cars are very different. People--and, more generally, animals--require food for two essential processes: the growth and repair of the bodily structure, and the energetic reactions that drive the bodily fuctions. Two chief components of foodstuffs support these processes: growth and repair are supported by protein, while energy metabolism depends mainly on carbohydrate (starch); an effective diet therefore requires an appropriate balance between the two. About ninety percent of the United States feedgrain-crop output goes to feed livestock -- cattle, dairy cows, pigs, poultry, and sheep -- and its over-all composition approximates the protein-carbohydrate ratio required for the proper nourishment of animals. Unlike an animal, the automobile engine neither grows nor repairs itself; it requires from its fuel only energy. Ethanol is made from the carbohydrate, or energy-yielding, part of a crop. Corn, for instance, is made into a mash and steeped until most of its carbohydrate is converted to sugar. Yeast is introduced, and the ensuing fermentation converts the sugar into ethanol and carbon dioxide. All of the grain's original protein content, together with the protein-rich yeast that proliferates during the fermentation, remains in the residual mash after the ethanol has been distilled off. This residue is known as "distillers' dried grains" and is sold domestically and in foreign markets as a protein-rich livestock-feed supplement. The Soviet Union, as well as many other U.S. trading partners, benefit from a concentrated product that better addresses their severe protein deficiencies, while we gain from a valuable alternative liquid fuel, increased jobs, improved farm income, and substantially improved balance of trade.

II. ENERGY IMPACTS. In the past five years, fuel ethanol has proven beyond any doubt that it qualifies as an exceptional high grade liquid fuel extender and octane enhancer. In 1985, U.S. motorists will drive more than 100 billion trouble-free miles on over 5.6 billion gallons of domestically produced ethanol-enhanced fuels, making ethanol the most significant liquid fuel alternative in the commercial marketplace.

Contributing to the growing demand for ethanol enhanced fuels is the fact that all major automakers recognize ethanol-blended fuels under their performance warranties (a fact which distinguishes it from other fuel alternatives).

In 1985, fuel ethanol will displace the equivalent of over 15.8 million barrels of finished gasoline, conservatively worth more than $600 million. It is legitimate for the fuel ethanol industry to compute its displacement effect on the basis of more expensive finished gasoline imports (roughly $.90 gal.) as opposed to average $28/barrel crude oil imports, because ethanol is itself an already refined, high value component that serves as an excellent motor fuel octane enhancer. In fact, a growing number of experts argue that ethanol's value is far above that of finished gasoline, since the addition of 10% ethanol to 90% gasoline results in an average 3-number increase in the fuel's octane level. According to numerous studies and refinery experts, ethanol is superior to the other most commonly mentioned options to lead for octane improvements in terms of both octane blend values and cost per octane barrel of improvement (when the tax incentives are considered).

Another very important dimension of ethanol's energy role is its excellent capability to displace oil by virtue of its combined displacement and energy savings effect. Relative to other oxygenates, an Ethyl Corporation analysis found that ethanol was by far the most significant displacer of crude oil in part because it also allows the refiner to reduce his energy losses caused by high severity reforming. With EPA's accelerated phaseout of lead in gasoline, this energy savings effect has become even more important and pronounced.

In the past, certain detractors of the fuel ethanol industry have sought to dismiss its importance on the grounds that it was unable to totally displace the roughly 100 billion gallons of gasoline burned by American motorists each year. The fuel ethanol industry is the first to admit that it does not represent a total solution to U.S. liquid fuel needs. No one technology will emerge in the forseeable future to pick up the nearly exclusive role that crude oil has played in the past few decades. Against the backdrop of increasingly scarce domestic oil reserves. U.S. finished gasoline imports have risen steadily, to where 250,000 barrels/day--over 100 million barrels a year--finished gasoline were imported in 1985, at a cost of well over $3 billion. These finished gasoline import expenditures represent little in terms of an "investment" for those billions of dollars drained out of our country each year: no refining jobs, no U.S. resources utilized, no new tax base created. Here, the fuel ethanol industry's production potential can be put into a more realistic perspective. Depending on which assumptions are used to calculate ethanol's crude savings effect at the refinery, its production today already represents a 10% reduction in finished gasoline imports, and it is very realistic to project ethanol's ability in the next few years to back out more than 50% of the need for imported gasoline, provided the proper signals are sent.

III. ENVIRONMENTAL/HEALTH IMPACTS. Ethanol's very positive environmental characteristics (reductions of CO and HC tailpipe emissions) have been widely acknowledged for several years, but the addition of its ability to replace lead at the refinery as an octane enhancer (mentioned earlier) adds up to an extremely significant contribution to national environmental and health objectives.

While it has always been difficult to quantify the tangible net gains to the economy of something like ethanol's ability to displace lead, the EPA recently completed a widely heralded cost/benefit analysis that found lead's elimination from gasoline would constitute a net national benefit of $800 million annually by the end of the decade. Obviously, ethanol's contribution to realizing this benefit should in some way be "credited to its account."

Ethanol's ability to serve as a substitute for lead takes on added significance when viewed against the backdrop of U.S. refinery policy and the substantial "octane gap" resulting from EPA's action to accelerate the phasedown of lead. As a result of the EPA decision to "phase down" lead usage, the projected "octane gap" over the multi-year period until 1992 (when lead was initially projected to be eliminated as a result of the replacement of the older leaded automobile fleet by newer, unleaded only automobiles), was computed to be a cumulative 30-40 billion gallons of "alcohol equivalent."

It would be optimum if the Senate Finance Committee could balance the public policy benefits of stimulating increased ethanol production as a substitute for lead as an octane enhancer against those allowing the massive refinery expenditures in capital equipment (reforming equipment, etc.) that will otherwise be required. The nation would benefit from a stimulated agricultural sector: increased displacement of foreign oil imports; the ripple effects of increased domestic investment; a more competitive oil industry; a medically safe and environmentally benign product; and a solid foundation for a renewably-based liquid fuel technology whose R&D potential is almost limitless as a source of stable, reasonably-priced liquid fuels in the future.

A final reference to ethanol's increasing role as an octane enhancer is in order here. Rather than being forced to price position against the "composite price" of gasoline as is now the case, we believe the arrival of ethanol as a higher value octane enhancer will ensure that it will not be a "chronically uncompetitive" alternative as some of its detractors now claim. Ethanol's increasing value as an octane enhancer, coupled with the inevitable advances in production technologies, should ensure fuel ethanol's competitiveness by the currently scheduled expiration date of December 31, 1992.

IV. ECONOMIC DEVELOPMENT IMPACTS. It only stands to reason that the fuel ethanol industry's capacity to invest dollars that would otherwise be "exported" to foreign producers in U.S. produced steel and equipment, jobs and feedstocks has a substantial and positive impact on the nation's economic development efforts. This benefit is especially valuable because the bulk of the investment now occurring is largely in the so-called "Rust Belt" of the Midwest. Some of the country's most economically depressed areas are increasingly benefiting from the economic ripple effects of the new stimulus the fuel ethanol production and marketing activities bring with it.

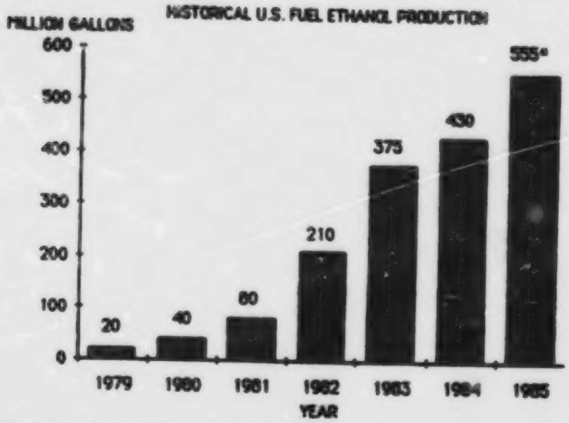
The attached set of conclusions from a Georgetown University Center for Strategic and International Studies (CSIS) analysis of the national security impacts of the emerging fuel ethanol industry details not only the important national security contributions, but also points out ancillary economic benefits, like a net balance of trade gain of roughly $2.5 billion annually from a 2 billion gallon industry (combined oil import reduction and high protein co-product exports). Other recent analyses, such as the 1984 GAO Report, found the fledgling ethanol industry has already created tens of thousands of new jobs, reduced net government spending, and stimulated well over $1 billion of investment in plants and equipment.

CONCLUSION. While it does not represent a panacea, the U.S. fuel ethanol industry has clearly demonstrated in the first six years of its commercial development that it makes a unique contribution to national energy, agricultural, environmental/health, economic and national security objectives. The Congress has played a critical leadership role in advancing the industry's development through this stage, especially as a result of "objective" tax incentive treatment. It is important that the Senate Finance Committee does its best to fully weigh the industry's cost and benefits. We believe the net benefits from ethanol production to the nation and the U.S. taxpayer are positive and should result in continued Congressional support for the domestic fuel ethanol industry.

Mr. Chairman, the U.S. fuel ethanol industry firmly believes that the evidence fully supports its claim that the current fuel ethanol excise tax exemption is a positive investment in many of the country's important energy, agricultural, and environmental goals and we respectfully request your continued support for the federal excise tax exemption for ethanol fuels.

Thank you.

HISTORICAL U.S. FUEL ETHANOL PRODUCTION



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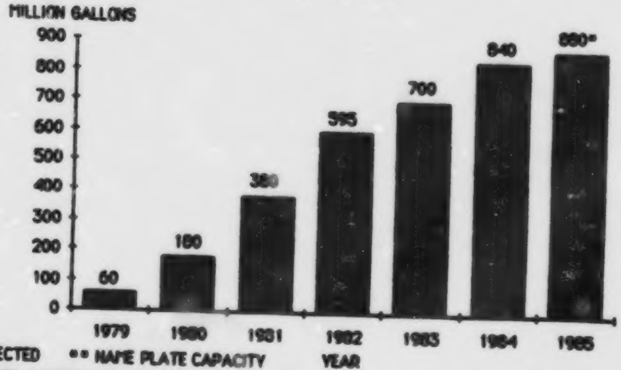
U.S. FUEL ETHANOL ANHYDROUS PRODUCTION CAPACITY**



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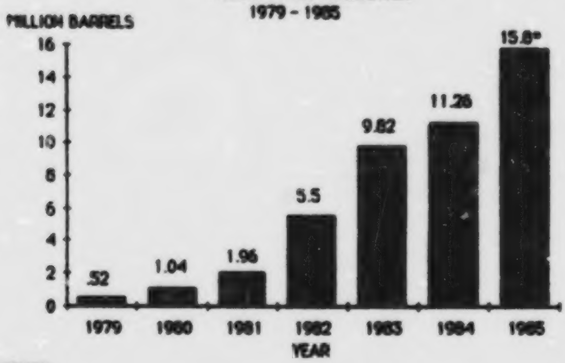
FOREIGN OIL IMPORTS DISPLACED BY U.S.
FUEL ETHANOL PRODUCTION
1979 - 1985



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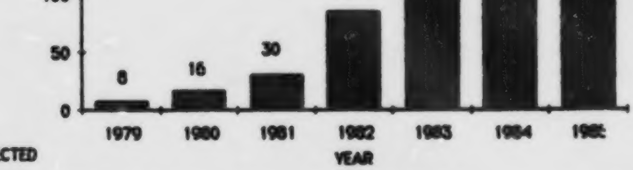
SOURCE: INFORMATION RESOURCES INCORPORATED, WASH., D.C.

U.S. FUEL ETHANOL PRODUCTION UTILIZATION
OF GRAIN
1979 - 1985



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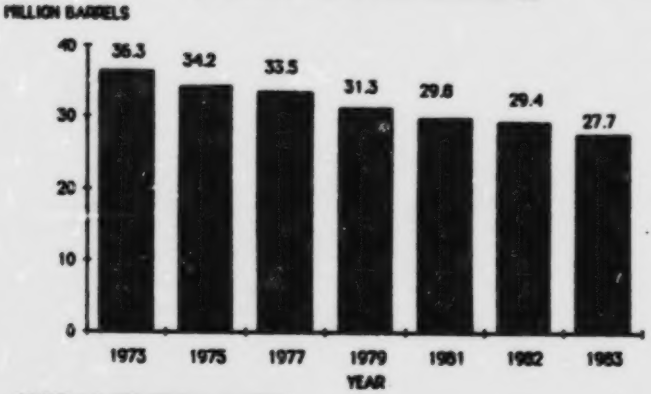
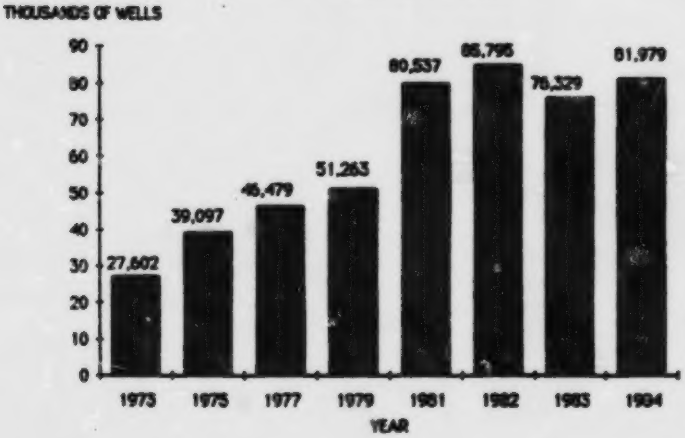
U.S. ESTIMATED PROVEN RESERVES OF CRUDE OIL



SOURCE: U.S. DEPARTMENT OF ENERGY

TOTAL WELLS DRILLED IN THE U.S.



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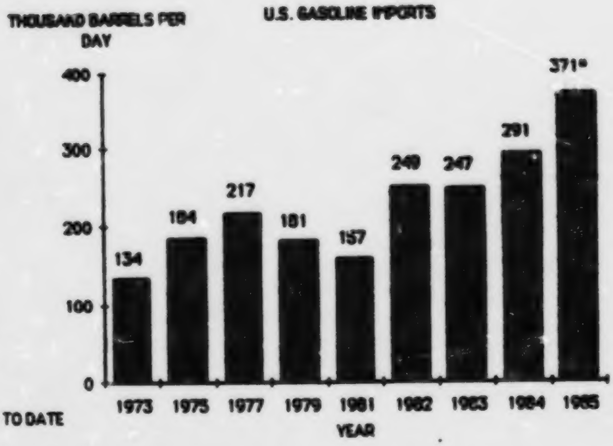
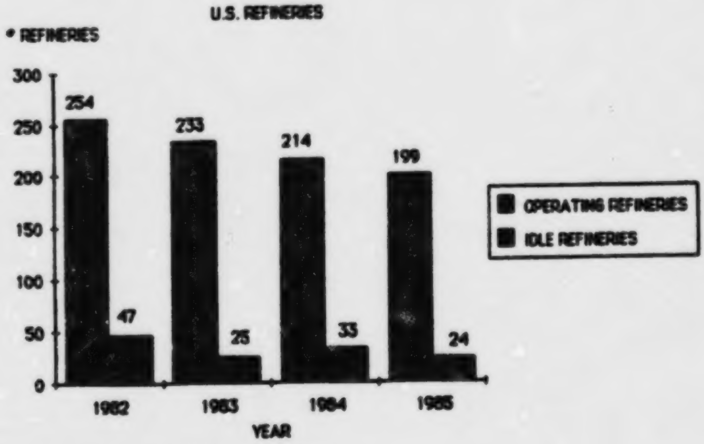


* YEAR TO DATE

SOURCE: U.S. DEPARTMENT OF ENERGY



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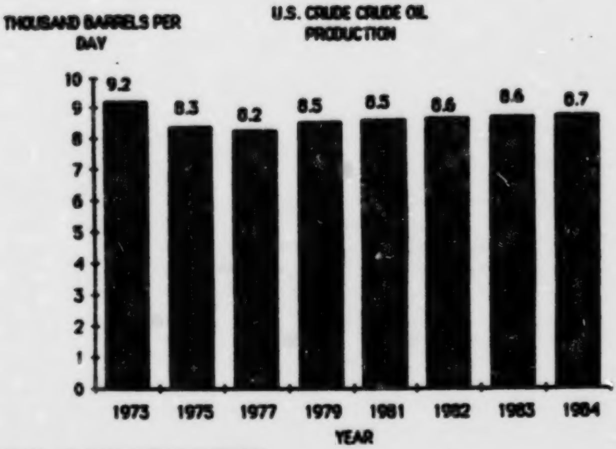

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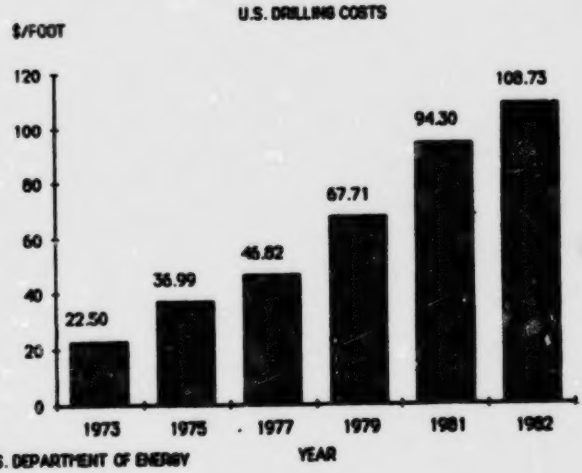

SOURCE: U.S. DEPARTMENT OF ENERGY

Center for Strategic & International Studies
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TWX 7108229583 Cable Address: CENSTRAT

ETHANOL:
NATIONAL SECURITY IMPLICATIONS

A Report of the Energy and Strategic Resources Program

Charles K. Ebinger, Program Director

Center for Strategic & International Studies
Georgetown University • Washington DC

BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Honorable Charles H. Percy, David Durenberger, And J. James Exon United States Senate

Importance And Impact Of Federal Alcohol Fuel Tax Incentives

Federal tax incentives have been, and continue to be, vital to the growth of the alcohol fuel (ethanol) industry. With these incentives, the industry increased production tenfold between 1979 and 1982.

The net impact of the incentives on the overall economy has been small. Specifically, total economic activity, employment, and the nation's trade balance have not been significantly affected by ethanol production. The net impact on the federal budget is not large. The budgetary cost of the subsidy is at least partially offset by savings in agricultural price support programs due to the added demand for corn for ethanol production. Finally, ethanol production has marginally enhanced national energy security by displacing small quantities of imported oil.

Balancing the incentives' costs and benefits, GAO believes that sufficient justification exists to continue the incentives until their current scheduled 1992 expiration date.

GAO/RCED-84-1
JUNE 6, 1984

GENERAL ACCOUNTING OFFICE REPORT
TO THE HONORABLE CHARLES H. PERCY,
DAVID DURENBERGER, AND
J. JAMES EXON
UNITED STATES SENATE

IMPORTANCE AND IMPACT OF
FEDERAL ALCOHOL FUEL TAX
INCENTIVES

DIGEST

Since 1978 the federal government has provided a variety of tax incentives to promote the development of the domestic ethanol (an alcohol fuel) industry. The most important of these incentives has been the exemption of gasohol--a blend of 10 percent ethanol and 90 percent gasoline--from federal gasoline excise taxes. Through 1992, gasohol is exempt from 5 cents of the 9 cent federal gasoline tax. Since only one-tenth of a gallon of ethanol is needed to exempt the entire gallon of mixed fuel from tax, the tax subsidy amounts to 50 cents per gallon of ethanol. (See p. 4.)

At the request of Senators Charles H. Percy, David Durenberger, and J. James Exon, GAO gathered data on some of the costs and benefits associated with the gasohol and related tax incentives. In particular, GAO addressed the

--importance of federal tax incentives to the domestic fuel ethanol industry,

--domestic economic effects of fuel ethanol production,

--net impact of the incentives on the federal budget,

--international trade impacts associated with fuel ethanol production,

--fuel ethanol industry's impact on national energy security, and

--federal tax subsidies to other energy industries. (See p. 6.)

IMPORTANCE OF INCENTIVES

GAO found that federal tax incentives have been vital to the establishment and development of the domestic fuel ethanol industry. Without a subsidy, ethanol cannot compete with gasoline at

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current prices and would not be used as a fuel. The best available ethanol production cost data indicates that at the time of our review, the 5-cent tax exemption may have been somewhat higher than necessary to sustain profitable operations by some existing producers. However, it is likely that the current subsidy was and is necessary for new producers to successfully enter the industry and expand the industry's production capacity. (See p. 8.)

At this time it is difficult to determine how long the fuel ethanol industry will be dependent on federal subsidies. Such a determination depends heavily on future oil prices, corn prices, technological development, and other factors which cannot be reliably predicted.

DOMESTIC ECONOMIC EFFECTS AND FEDERAL REVENUE IMPACTS

From virtually any perspective, the fuel ethanol industry has had only a modest impact on the U.S. economy. Fuel ethanol production met only about one-fifth of 1 percent of gasoline demand in 1982 and is projected to meet only about 1 percent of gasoline demand by 1990.

Accordingly, while economic impacts on certain localities could be significant, the industry's impact on national output, employment, agricultural prices, and the federal budget is very small. For example, concerning the federal budget, GAO found that in 1982 the incentives resulted in about a $100 million tax loss to the Treasury. This loss was at least partially offset by reduced agricultural support program costs attributable to the ethanol industry's demand for corn. Because the industry's impact on total national output and income cannot be precisely calculated with available information, it is not possible to calculate the industry's impact on tax revenue. Consequently, it is impossible to conclusively determine the industry's net revenue impact. In any case, the impact is not large. (See p. 20.)

INTERNATIONAL TRADE IMPACT

Like the industry's domestic economic impact, small ethanol production levels suggest a modest impact on the nation's international trade balance. GAO found that in 1982 fuel ethanol production and use reduced oil imports and increased the value of agricultural exports by raising their prices, but also increased fuel ethanol imports. Considering these factors alone, domestic fuel ethanol production and use resulted in about a $210 million improvement in the nation's nearly $43 billion merchandise trade deficit. However, there may be other trade impacts GAO could not quantify which would reduce or reverse this modest improvement. (See p. 31.)

IMPACT ON NATIONAL ENERGY SECURITY

Domestically produced fuel ethanol enhances national energy security by reducing U.S. dependence on imported oil from the Middle East and other politically unstable regions. However, as with the industry's domestic economic and international trade impacts, fuel ethanol's impact on national energy security is small because the industry's current and projected output represents only a small fraction of gasoline demand. (See p. 37.)

GAO found that stockpiling fuel ethanol in a manner comparable to the Strategic Petroleum Reserve could somewhat enhance the role of fuel ethanol in reducing U.S. vulnerability to an oil supply disruption. However, while GAO's exploratory analysis indicated that ethanol stockpiling could be feasible, its cost effectiveness would be questionable. (See p. 42.)

OTHER ENERGY INDUSTRY TAX BENEFITS

GAO found that the total value of tax subsidies received by conventional energy industries such as oil and gas have historically dwarfed that received by the fuel ethanol industry and other conservation and alternative energy sources. Projections prepared by the Joint Committee on Taxation suggest that through at least 1988 conventional energy industries will continue to receive the vast majority of total energy tax subsidies although on a per barrel basis, the subsidies provided the oil and gas industries are not as large as the ethanol subsidy.

GAO points out the large value of the subsidies provided to conventional energy industries to demonstrate that fuel ethanol does not compete in a free energy marketplace. (See p. 49.)

The administration has opposed federal fuel ethanol tax incentives because such incentives distort the energy marketplace and contribute to a misallocation of economic resources. Recognizing the tax incentives offered to encourage production by conventional energy industries, this argument could just as easily be applied to these incentives. Not to do so seems somewhat inconsistent. (See p. 53.)

CONCLUSIONS AND OBSERVATIONS

Based on its assessment of currently identifiable costs and benefits surrounding the federal fuel ethanol tax incentives, GAO believes it would be appropriate to continue these incentives until their 1992 scheduled expiration date. The private sector has invested considerable sums of money in fuel ethanol plants--total plant value exceeds $1 billion--with the expectation that the market created by the tax exemption in particular would be present until 1992 when the exemption is scheduled to expire. Removing the incentives at a time when ethanol remains uncompetitive with gasoline could be viewed as a break in faith that would not be justified by any expectation of major budget savings or significant economic gains. GAO believes, however, that an increase in the incentives would not be justified because combined federal and state incentives are adequate to make ethanol competitive. GAO further believes that the need for the incentives should be periodically reviewed. If relative costs between gasoline and ethanol narrow appreciably, federal subsidies would no longer be essential. (See p. 55.)

AGENCY COMMENTS

GAO provided drafts of this report to the Departments of Agriculture, Energy, and the Treasury for official comment. The Department of Agriculture chose not to provide comments. The Department of Energy generally agreed with our findings and conclusions while the Department of the Treasury disagreed with our principal conclusion that the tax incentives should continue until the scheduled expiration date. Treasury's primary objections to our conclusion are that (1) oil and gasoline price decontrol made the incentives obsolete and (2) the marketplace is the most efficient allocator of economic resources and incentives such as those provided to alcohol fuels distort that marketplace.

GAO believes that strict application of marketplace economic theory does not take into account (1) the potential long-term economic value of supporting a new industry over a short period of time, (2) the national security advantages which could accrue to building an industry capable of producing an alternative automotive fuel, (3) the importance of the government meeting its commitment to individuals and businesses that have invested in fuel ethanol plants with the expectation that the federal incentives would be in place through 1992, and (4) the significant distortions which have already been made in the energy marketplace by tax incentives to conventional energy industries. (See p. 56.)

The Chairman. I want to find out, Mr. Duncan, and then go across, exactly what you are driving at. Are you suggesting that you would be willing to accept a phaseout of all energy credits, wind and otherwise, so long as it applied to fossil fuel and everything else, and you'll take your chances on the marketplace?

Mr. Duncan. Absolutely.

The Chairman. Over how long a period should the phaseout be?

Mr. Duncan. Well, we have suggested 3 to 5 years. What is obviously needed, whether we are talking real estate or energy, or whatever, an industry that has had to cope with the Tax Code, whether benefits or burdens, over any number of years needs a transition period between old and new tax regimes, and 3 to 5 years is the time period that we have fingered for our industries; in particular the wind industry, which I think is closer to commercial competitiveness than certain of the other renewable technologies, ought to phase out earlier, and we have indicated that we would be willing to phase out in 3 years.

The Chairman. Ms. Hobson?

Ms. Hobson. Yes, we certainly do. We feel that if we are going to jump off a cliff, we would rather take everybody else with us. [Laughter.]

There are some 2,000 telegrams there that were sent to you from our members and from some of the major organizations that you very kindly accepted earlier, and I think they will reenforce what I am saying.

The Chairman. So, basically, you are saying the same thing Mr. Duncan is: You are willing to go ahead against Mr. Duncan's wind company or against coal or anybody else, just make it a level playing field, and no form of energy gets any incentives, any credits?

Ms. Hobson. Either that, or that we have a level playing field, which is why we support S. 1220. In fact, we think it is a model bill, and we would like the oil companies to consider it, API, that you phase out the credits, that you have a transition, and that if it is too abrupt right now, then let's continue it for 3 years and phase out everybody.

The Chairman. Mr. Vaughn.

Mr. Vaughn. We would join with the other members of this panel and the alternative energy industries in support of a 3-year extension and the phaseout of the investment tax credit for energy investments.

However, the domestic ethanol industry producers, have what we regard as a unique situation with regard to the Tax Code. In 1980, a proposal was put in place, established by Congress, to establish an ethanol excise tax exemption, or exemption from the motor fuel tax, and put it in place for 12 years as an incentive to get grain processors into the ethanol production business and give them an opportunity to recoup their considerable financial investments.

Many of the facilities out in the country today—again, more than 100 of them—were built and are operating under the assumption, the guarantee, the commitment, whatever you describe it, from the Federal Government of an excise tax exemption being in place through 1992. Many of those facilities have yet to come anywhere near capitalizing their investments, and we estimate that some 65 to 70 percent of the total industry would shut down if faced with a premature abandment of excise tax exemption. The revenues lost are coming out of the Highway Trust Fund, it is not an appropriated level of money, this year alone we anticipate that some $220 million will not flow to the Highway Trust Fund. We have already calculated out the benefits in excess of $2 billion coming back to the economy as a result of that $220 billion investment from the Highway Trust Fund.

The CHAIRMAN. Well, your problem is you have a 12-year reliance, and you are saying, having given you this, it is unfair in the middle to say, "Now you are out."

Mr. VAUGHN. "It is unfair Mr. Chairman," without the excise tax exemption in place the ethanol industry will be mothballed—it will shut down. The ethanol excise tax exemption was a proposal put in place at a time when we had suffered through back-to-back oil shortages and chronic grain surpluses made worse as a result of the 1980 grain embargo. The program has been effective. It has done exactly what the Congress designed it to do, and it is 5 years through its planning and growth cycle. In the next 7 years the Federal excise tax exemption will be completely phased out of existence; we believe ethanol producers will be able to compete head-to-head with gasoline by 1992 as intended by Congress when it put in place the excise tax exemption 5 years ago.

The CHAIRMAN. Mr. Gorin.

Mr. GORIN. we would concur and agree that, if in fact a true level playing could be established, that we would be able to compete with that. However, we would point out that there are two factors which make the establishment of a real level playing field very difficult. One, there is the 125-year historical role that fossil fuels have played in this country and in the minds of most Americans as to where they go to get their energy. Second, the Tax Code, unless it is changed, would continue to allow expensing of fuel costs, which tends to make decisionmaking to go into renewables difficult for someone who is, in effect, through the Tax Code, being rewarded for using a consuming fuel which he can then deduct from his business as a business expense. So that would also play a role in whether or not there would be a real level playing field.

The CHAIRMAN. Senator Wallop.

Senator WALLOP. Thank you, Mr. Chairman.

Mr. Vaughn, in your testimony you gave some fairly impressive amounts of fuel produced, as though there were no fuel consumed in the production of that. You speak of backing out. Are you saying net backing out? Or are you ignoring the amount of fuel and other things necessary to produce?

Mr. VAUGHN. If you are talking about the total consumption of fuel, from the raising of the grain, the processing of the grain, bringing it to the facility, the coal consumed, that has not been factored into the backing out of imported oil. The figure I referred to was as a result of ethanol, the production of a finished refined product that is able to back out, according to the GAO study, about 1.2 gallons of gasoline for every gallon of ethanol produced as a refined product, and that roughly calculates out to an ability to purchase 500 million dollars' worth of imported gasoline less than we would have without ethanol.

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Senator **WALLOP**. But it doesn't back it out—does it—if it consumes it to produce it?

Mr. **VAUGHN**. In terms of the cost of the fuel, or the fuel consumed in the production of corn, or in the fuel used in the production of the ethanol itself, I don't have those figures for you; I can certainly get them for you. But the corn the domestic ethanol industry consumes—210 million bushels this year—represents less than 2.6 percent of the total annual corn crop and would be produced even if there was no ethanol industry. Ethanol producers consume grain and take it off the market, boosting farm income and lowering farm program costs. Without an ethanol market for corn, it goes into Government surplus, or sits on the market depressing grain prices farther.

The domestic ethanol industry consumes coal and wood energy to produce a liquid fuel alternative to imported gasoline. A typical 60 million gallon ethanol facility will burn 42,000 Btu's of coal to produce 1 gallon of ethanol with an energy value of 80,000 Btu's of liquid fuel energy, which allows the United States to "back out" or not purchase more than $500 million worth of imported gasoline.

In terms of the gasoline, or other petroleum products consumed in the production of ethanol or the production of ethanol feedstocks, less than 2.6 percent of the total corn crop this year will be consumed by the domestic ethanol industry to produce ethanol. In addition to ethanol from the corn other valuable coproducts are also produced, including: corn oil, corn meal, starch, CO_2 and DDG (a high protein animal feed). It is difficult, if not impossible to determine a specific amount of gasoline consumed in the production of 210 million bushels of grain when the ethanol produced represents only one product from that grain and when the cost of production figures vary from region to region and State to State. Finally, the National Corn Growers and other major farm organizations have stated that the amount of grain going in to the production of ethanol is large enough to have a positive impact on grain prices and farm income, but small enough to still be produced even if the ethanol industry were not in place in the United States.

I am not sure how we calculate out just the amount of fuel producing just the corn that we consume, but we can certainly get that number for you.

[The figures follow:]

Renewable FUELS

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Eric Vaughn
President/Chief Executive Officer

July 24, 1985

The Honorable Malcolm Wallop
United States Senate
Room 206 Russell Senate Office Building
Washington, D.C. 20510
Attn: Mr. Pearre Williams, Legislative Assistant

Dear Senator Wallop:

On behalf of the members of the Renewable Fuels Association, I want to thank you for your questions regarding the accomplishments of the domestic fuel ethanol industry during the recent hearing before the Senate Committee on Finance on tax reform impacts on energy production this past week.

The purpose of this letter is to provide you with a more comprehensive response to your specific question concerning the "net" amount of imported gasoline the production of domestic ethanol actually "backs out." In my testimony before the Committee, I stated that in 1985 alone the production of 550 million gallons of ethanol will allow the U.S. to back out more than $500 million worth of imported gasoline, thus enhancing our nation's energy security. You questioned the accuracy of this figure and asked if we had taken into consideration the consumption of crude oil and gasoline in the ethanol production process in our reported imported gasoline savings.

Nearly every major ethanol facility in the U.S. burns American coal as its heat and energy source for the production of ethanol. One domestic facility uses natural gas. Most small ethanol facilities (one million gallons or less) use either coal or wood as their heat and energy sources.

For a typical 60 million gallon ethanol production facility the steam energy input breaks down as follows:

Ethanol Process	
Cooking	8,000 Btu's/gallon of ethanol produced
Distilling	16,000 Btu's/gallon of ethanol produced
Evaporation	6,000 Btu's/gallon of ethanol produced
Drying	12,000 Btu's/gallon of ethanol produced

Total	42,000 Btu's/gallon of ethanol produced

(Note: Energy output per gallon of ethanol is 80,000 Btu's)

Thus, the production of ethanol requires 42,000 Btu's of energy input provided by coal, wood or natural gas, and produces over 80,000 Btu's of energy output in the form of a liquid fuel alternative to finished gasoline imports.

The primary feedstocks for the production of ethanol in the U.S. includes corn, wheat, barley, cheese whey and molasses. We have not calculated the energy costs related to the production of these ethanol feedstocks for two specific reasons: First, an energy cost analysis performed on any agricultural commodity would have to take into consideration crop yields, uses of fertilizers and pesticides, use of irrigated water, etc. Feedstock production costs in one part of the nation would have an entirely different set of cost of production variables than feedstocks from another region. Second, the total amount of corn consumed by the ethanol industry this year represents less than 2.6 percent of the total corn crop. The National Corn Growers Association and the U.S. Department of Agriculture have stated in the past that without the domestic ethanol industry in place and providing a new cash market for corn, the corn would be grown anyway and end up in the reserve or on the market depressing farm prices.

In addition, several valuable co-products are produced from a bushel of corn in addition to ethanol, including...corn oil, corn meal, starch, CO2, high fructose sugar and distillers dried grain (an animal feed). Thus, energy input costs attributed to the production of the grain in the first place should not be entirely "charged" the ethanol produced from the grain feedstock.

The domestic fuel ethanol industry was created by the Congress in the late 1970's as a way of expanding the production of domestic sources of energy, in response to back-to-back oil supply cutoffs and as a means of providing an expanded market for our agricultural produce. In just six years the production of domestic fuel ethanol has risen from less than 10 million gallons to over 500 million gallons. We owe our past success, our present promise, and our future growth to the continued wise application of public policy at the federal level. With the federal excise tax exemption in place through 1992, as stated in current law, the domestic fuel ethanol industry can continue to help ease our energy problems, strengthen our agricultural sector, create new jobs and encourage economic development in America's heartland.

Again, we thank you for your strong interest in the domestic ethanol program and for the opportunity to provide you with detailed information regarding the accomplishments of the domestic fuel ethanol industry.

With very best regards, I am

Sincerely,

Eric Vaughn

Eric Vaughn
President

Senator **Wallop**. Let me just toss one to the panel for anybody who wishes to answer it. Assuming, as many do, that the price of oil drops to $20 or even less, what does that do to your level playing field? It seems to me that most of the figures that have reached this committee and the testimony that was in front of my committee a couple of weeks ago tend to indicate that that tips it rather drastically away from you.

Mr. **Duncan**. Responding for the wind industry, I think we are assuming that we are going to have to deal with market forces, and they will fluctuate. I think we anticipate and most observers do that the price of oil ultimately is going to go up, and probably we will see a real increase in price, but that at least in the near term it will very likely drop and conceivably that far. And we are prepared, with the kind of transition period that I have already mentioned, to compete with that. If in fact it drops that far and stays that far down over a long period of time, then it is not an economic allocation of the country's capital to continue to develop alternatives to that. I don't anticipate that that will be the case, and I think most observers do not also.

Mr. **Gorin**. Senator, from the point of view of the residential and commercial solar industry, we compete primarily against electric prices, and the prices of electricity continue to go up even if there are temporary dips in the price of oil which may be used to produce the electricity. But generally, the other costs associated with producing electricity, distributing it and so on, continue to go up.

Senator **Wallop**. But I think you would agree with me, I think all of you would agree with me, that oil at least at this moment in time in the world's marketplace is a sort of "gold standard" of the energy industry. It is the thing from which all other energy prices ultimately are pegged, whether it is the price of coal or the price of renewable fromethanol or from wind or solar or anything else, ultimately.

Mr. **Gorin**. If you are suggesting that if the price of oil dropped to $15 a barrel, the price of electricity would drop correspondingly, I don't know but I would doubt that would actually happen.

Senator **Wallop**. Well, the price of coal, the fuel by which a still significant portion of electricity is generated, would drop with the price of oil—it always has, you know—because, for one thing, of the fuel switching capacity that was developed by the two crises.

Mr. **Vaughn**. Senator, the witnesses we listened to this morning I thought painted a relatively correct picture, from every reading, that if oil prices, in fact, fall to $15 a barrel or $10 a barrel, or let's all be extra happy about it and wish $3-a-barrel oil again, how long can we expect prices like that and how can we afford to be unprepared for the next run-up in prices and squeeze in supplies. The long-range potential for the oil market, from every analysis available, unless a major oil find is out there that somehow the major oil companies haven't found, is that we will see a dip in prices, but we are certainly going to see a run-up in prices again.

Senator **Wallop**. But, in effect, that flies in the face of your other plea, that the viability, the economic viability of your industry is dependent pretty much on the tax exclusion.

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The economic viability of the domestic ethanol industry is dependent on the continued wise application of federal tax policies that were put in place through 1992, to provide a production and marketing incentive for ethanol blended fuels. We believe, however, that the cost of producing ethanol will continue to fall in the years to come, just as they have in the past five years. (Ethanol cost roughly $2.00 per gallon to produce in 1980 and cost about $1.50 per gallon to produce today). Ethanol producers in the U.S. have aggressively used the time provided by the government for an exemption from the federal excise tax to invest in new production technologies, new yeasts and other developments which have lowered the cost of production dramatically.

We believe the economic viability of ethanol is dependent on several factors, including: the cost of gasoline, the cost of ethanol feedstocks such as corn, wheat and barley, and the marketability of ethanol as an octane alternative to lead in gasoline. In addition, should the oil refiners find that other octane alternatives...benzene, toluene, etc...are either uneconomical or pose serious environmental problems then ethanol's market demand could rise to the point where tax incentives are unnecessary.

So, while ethanol production today is dependent on the federal excise tax exemption remaining in place through 1992, the industry is moving forward with investments in new equipment and new technologies to be prepared to compete in an incentive free marketplace, as the Congress intended when it first put in place the ethanol excise tax exemption.

Mr. VAUGHN. At the same time, there is the world market price for gasoline which is not controlled by this country—it is controlled by the other major producing nations—and also the cost of the feed stock which this industry can't control. If the U.S. grain price was at world market levels today, this industry would already be competitive with gasoline. So there are market forces beyond the control of the domestic producing industry.

Senator WALLOP. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Matsunaga.

Senator MATSUNAGA. Thank you, Mr. Chairman

I want to congratulate all of you. You have testified to something very close to my heart. As you all know, I have championed the cause of alternative energy.

Now, do I understand correctly that you all support S. 1220?

Senator MATSUNAGA. The record will show they are all nodding affirmatively.

Several weeks ago President Reagan stated, and I quote,

> "I don't believe we want to increase our energy dependence on foreign imports or give the ailing OPEC Cartel a shot in the arm. We must secure reliable secure energy sources here at home."

Now, this would seem to me that the President supports an alternative-energy development program here at home, because I am sure you will agree with me that renewable alternative energy is the only one which would be secure and continuing. Oil is depletable, coal is depletable. Besides, as you pointed out, by development of an alternative renewable energy we would clear the air of pollution and even the ground in many respects.

Now, my question to you is: Do you feel that the Federal Government should play a role in securing energy independence? Or do you feel the private sector can do it?

Ms. Hobson.

Ms. HOBSON. Senator, as a former senior executive with the Department of Energy, I think it is essential that the Federal Government set the tone of looking toward energy independence and all the various technologies that would fit into that kind of a program.

As you know, one of the reasons the Solar Lobby is a viable organization is because the Department of Energy and the Federal Government has decreased all spending on conservation and renewables, including the elimination of many of the information programs that provide citizens with alternative choices. I think it is very important for the Government to take a leadership role. We are frustrated because we cannot get the attention of the Department of Energy in this terribly important area, and that is why we have come to this committee, in hopes that your vision and your effort and your considerations will help to lead the administration toward a greater emphasis in this area.

Senator **Matsunaga**. Mr. Duncan.

Mr. **Duncan**. Senator, one of the justifiable uses of the Tax Code, and one which this committee has embraced is the use of the Tax Code for capital formation. And what we have seen with the deployment of the energy tax credits is precisely that, the creation of new industries, in my case an industry that is now a billion-dollar industry. It happens to be in the energy sector, and that contributes to national security and ultimate energy independence, and I think that is extremely important, but I don't think we even have to go that far afield to find the justification for S. 1220.

Senator **Matsunaga**. Mr. Vaughn?

Mr. **Vaughn**. Senator Matsunaga, the domestic fuel ethanol industry has already invested in private sector resources more than $1.5 billion in production facilities. The Federal Government has invested, in the form of loan guarantees, a little over $400 million. The funds were invested on the basis of a Government plea, the Government coming to grain processors around the country to look at the potential to produce a liquid fuel alternative to imported gasline from grain. Today, ethanol represents the most significant liquid fuel alternative we have in the United States.

If the Federal Government doesn't provide that leadership, and doesn't provide that guidance, not just for this year but for the next generation, there is no alternative to ever increasing dependence on imported sources of energy. We won't have an alternative liquid fuels industry in this country without creative, short-term tax policies and committed leadership coming both from this committee and from the administration.

Senator **Matsunaga**. Mr. Gorin?

Mr. **Gorin**. I would just respond very briefly. Given the critical role that energy plays in the economy of this country, I don't see how it is possible for the Federal Government not to be involved in some ways in determining energy policy. And I think it is terribly unfortunate that the administration's rhetoric, as you just read and as the President spoke when he went on television to discuss his tax proposals, just don't seem to gibe with actually what is going on. It is unfortunate.

Senator **Matsunaga**. So what's new? [Laughter.]

Mr. **Gorin**. We are here trying to do something new.

The **Chairman**. Senator Durenberger.

Senator **Durenberger**. Mr. Chairman, I think the answer to that question isn't so much whether it is the Government or the private

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sector, it is whether or not you can rely on the marketplace. And it strikes me, the little bit I know of energy history in this country, that it was the ranking member of this committee and a lot of other people who knew something about the energy marketplace who warned us 20 years ago what would happen when the Government started messing up the marketplace in this country. And now the chairman of the committee I think has his finger on the pulse of the issue, and that is: What is the appropriate Government role in energy policy, as though the tax system or whatever? And he asks the right questions, about the subsidy.

But it is a tough subject, because he asks them in a larger context, which is, is our society going to get off its kick of subsidizing consumption and start to subsidize something else, or withdraw its subsidies and let the marketplace work? All the subsidies in this country for 30 years have been in the direction of consumption. We debated a national rail passenger system in the form of Amtrak out here, and a few people want to say, "Well, you know what killed rail passenger service is all the Government subsidies for automobiles; there is no question about that," you know?

But we are out of context here. It is really hard to discuss that today because we have been living with it for so long.

But I think the chairman has his finger right on the problem of tax reform—how do you get it done? And you have all made the right responses, I think, in terms of the so-called level playing field. But then Mr. Vaughn has to say you can't level that playing field out too quickly by getting rid of the highway gas tax credit, or our 400 million dollars' worth of subsidized investment, capital investment, goes kaput. Somebody else will say, "Yeah, I'm all for the marketplace, too, but—" you know? And that's why it's hard.

I mean, it is enjoyable sitting up here listening to this testimony, because it is all great, but it is going to be difficult to come to a decision.

I would add one other dimension, and let me ask Mr. Vaughn this question: Besides the subsidies to the ethanol fuels industry that have been discussed here, would you tell us the current status and importance of import quotas and tariffs which are designed to protect the American ethanol fuels industry againist subsidized foreign competition, and where that also would have to fit in this whole notion of subsidies?

Mr. VAUGHN. As you know, Senator, the ethanol excise tax exemption currently stands at 6 cents per gallon. The Congress, in its wisdom at the time, found a way to balance off the incentive provided to domestic ethanol producers through the excise tax exemption from the Federal Government to make certain that foreign governments—Brazil, Spain, and other nations—from coming into this country with boatloads of ethanol, dumping it on the market and taking advantage of a Federal tax incentive for the domestic industry by putting in place a tariff equal to the excise tax exemption.

We have found, since 1980, that very ingenious and money hungry people have found ways to circumvent that tariff. In fact, in the last 18 months, seven letter rulings have been issued by the U.S. Customs Service providing importers with loopholes convenient enough to circumvent the tariff legislation put into law by this Congress.

Senators Dole, Grassley, Lugar, yourself, and others have supported legislation that would shut down those tariff loopholes and reforms the kinds of incentives and the developmental activities intended for the ethanol industry here in this country.

Right now, we are sitting and watching a sieve, and that sieve has ethanol pouring through it, developing and helping the Brazilian economy and six or seven of the world's largest sugar producers, but having no beneficial impact on the United States. These importers escape the ethanol duty, and they gain the benefit of the excise tax exemption all across this country, not to mention the 32 States in this country that provide State excise tax exemptions for ethanol, including Brazilian product. It is a scandal, and it ought to be shut down. If we could just pass your legislation, Senator Durenberger, we could shut it down.

Senator DURENBERGER. Thank you, sir.

The CHAIRMAN. Senator Long.

Senator LONG. I have no questions, Mr. Chairman.

The CHAIRMAN. Senator Matsunaga.

Senator MATSUNAGA. Thank you, Mr. Chairman.

The opponents of S. 1220 no doubt will, as they have in the past, point to the estimated costs of the program. For example, the estimated cost of the extension of the solar/thermal, low and high temperature, and photo voltaics tax credit would mean a loss of $975 million over 5 years; and for biomass, $150 million over 3 years; for wind power, $190 million over 3 years; for geothermal, $175 million over 3 years; for hydropower, $110 million over 2 years; oceanthermal, $60 million, et cetera.

Now, I don't quite believe these figures, because I was at one time presented with figures that for every $1 of tax credit the Federal Government has extended for the development of alternative energy, the U.S Treasury has enjoyed $9 in additional revenues which it would not have seen had the tax credit not been granted and new industry developed. In other words, the tax credit provided for an expansion of the tax base.

Now, I would think that you should see if you could come up with some study within your own industry to indicate that new taxes have been created by your industry because of new industry or expanded industry resulting from the existing energy tax credits. The study should focus on additional business which would result, and the expansion of the tax base as a result of the continuance of a tax credit. Then I think you will have overcome this major objection which is brought up time and time again by the Treasury.

Now, do you think you could provide such studies, you could provide figures from such studies?

Mr. GORIN. Senator, we at the Solar Industries Association would be pleased to provide you with some of those figures. Some of our State chapters have done studies on the State level in their States, and we are in the process of doing a statistical analysis of the industry, and we will send a copy of that report to you as soon as it is complete, and to the other members of the committee.

Senator **Matsunaga**. Good. I will appreciate that, because whenever I bring this matter up they say, "Well, where is the study?" So I would appreciate it very much.

Mr. **Kennel**. Senator Matsunaga.

Senator **Matsunaga**. Mr. Kennel.

Mr. **Kennel**. In that same vein, our company has done our own independent studies on those with an alcohol plant and a small wood-fired power plant, as two examples, and we are showing what we would hope to be incontrovertible evidence that in just the 2 years of construction—just those 2 years of construction—if you take the taxes associated with the construction profits, the income taxes from the construction workers, property taxes, sales taxes, and those sorts of things, that we are showing in both cases like a 2 to 1 direct new tax revenue benefit over the energy tax credits taken down for those 2 years. That doesn't take into account the 30 years that the plants operate beyond that.

I have taken those numbers to OMB, to Treasury, to the House Ways and Means, to the White House, and the only comment I get back is that nobody can punch any holes in those but that it is not a correct calculation because the people that are working construction or on our projects would have jobs anyway. And so the tax money would have gone in anyway. And I understand that is a classic comeback that they give, and I don't know anything other than common sense to keep opposing it.

Senator **Matsunaga**. Ms. Hobson?

Ms. **Hobson**. Senator Matsunaga, we re pulling together a new report using availble data that is going to address that where we can and some other issues, that we hope to have done by early September. And we will certainly see that everyone gets a copy.

Senator **Matsunaga**. Good. Thank you.

[The report was not available at press time.]

Senator **Matsunaga**. Do I have any more time here?

The **Chairman**. I have no more questions; I don't know if Senator Long does. Why don't you go ahead?

Senator **Matsunaga**. I just wanted to point out, in connection with what we have been saying, that in Hawaii, at the State level, we have seen tremendous increases in revenues, at the State level, because of tax credit extended to business, to private enterprise, to encourage them to go into business which they otherwise would never have gone into. The classic case is macadamia nuts. We provided a moratorium of 8 years on property taxes, to encourage the sugar and pineapple plantations to go into macadamia nut raising. In the first 10 years Hawaii enjoyed $3 million in additional income; in 25 years that was raised to over $50 million; by 1990 we expect that figure to exceed $95 million. This is all taxable new income for the State.

I am a strong believer that our Tax Code should be designed to engineer desirable social goals, and one of the desirable social goals is definitely, in this instance, energy independence.

Thank you very much. I appreciate your presence here.

The **Chairman**. Thank you very much.

Now we will conclude with the panel of Henry Goodrich, Forest Hoglund, Francis Durand, and Sidney Hansma.

Senator LONG. Mr. Chairman, while the witnesses are taking their places, I just want to say I am pleased to see Mr. Henry Goodrich here today. He is an outstanding citizen of Freeport, LA. He is the former president of the Louisiana Association of Producers and Royalty Owners and a highly regarded citizen of the State of Louisiana.

The CHAIRMAN. Well, we are glad to have him here today, glad to have him with us.

Mr, Goodrich, go right ahead.

STATEMENT BY HENRY GOODRICH, PRESIDENT, GOODRICH OIL CO., SHREVEPORT, LA, ON BEHALF OF THE LOUISIANA ASSOCIATION OF INDEPENDENT PRODUCERS AND ROYALTY OWNERS

Mr. GOODRICH. Mr. Chairman, members of the committee, I am Henery Goodrich from Shreveport, LA, and I am here today representing the Louisiana Association of Independent Producers and Royalty Owners. My testimony is going to be somewhat of a personal nature and yet speaks for small independents throughout Louisiana, we know, and indeed throughout the Nation.

Our message to you today is that Treasury II hurts our industry tremendously, and the way it hurts us is that we are going to have less dollars to spend in exploration. It simply means that we are going to have less wells drilled, less new oil fields found, less production, less reserves, and more bankruptcies. But all of these are our problems, and I think one thing that you as the Finance Committee need to consider is something more important than that, and that is it is going to make us more dependent on foreign crude oil.

Let me tell you what we find in our industry today—a surplus of natural gas and a shrinking market in the United States, from some 22 trillion cubic feet of gas a year to 16.25. And that comes home to roost to us at the well head. We have seen our prices at the well head drop from well over $3 a year ago to as low as $2.30 and $2.40.

Even maybe worse than the price we are getting is, we are having trouble selling enough of our gas at any price to make a decent cash-flow.

As an independent producer, my asset is my oil and gas in the ground, and every day that that price goes down, the value of my asset goes down. It is also normal for independents to borrow money and use as collateral their asset, which is that gas in the ground. So every day that the price of gas goes down, my asset value goes down, my collateral value goes down, and I'll tell you this: Any independent who 2 years ago had what would have been considered the upper limits of safe and conservative and prudent debt is in danger of going bankrupt today.

In short, sir, we are in deep trouble as an industry. And just as we thought nothing could get worse, here comes new taxes.

The central point that I want to get across today is that, though we have these problems at the marketplace, we will work out our problems at the marketplace. There may be restructuring, there may be weeding out, but the industry will survive.

I know that the members of this committee and of the U.S. Congress must feel that we need a domestic oil industry. They must if they know that we are importing 30 to 35 percent of our daily crude oil need, right now, today, in a time of worldwide glut, if they know that our natural gas reserves declined over a 10-year period from 300 trillion cubic feet to less than 200, if you know that when prices went up the industry responded and got out and drilled new wells and for the first time in a long time found more gas than we used. Increased oil drilling reversed a constantly-plunging downward trend in the number of years of life of reserves that we have, and without that increased oil drilling we would be in the neighborhood of 2 to 3 years of domestic oil life in this country today.

If you know all of those things, I know that you must realize the importance of having a domestic oil industry. But when you see the proposals of some people, it makes you wonder if they realize this. Specifically, and the simple point that I want to speak to, is that some would go even further than Treasury II and do away with the expensing of intangible drilling costs.

I can tell you this. If the U.S. Congress does that—and this may sound bombastic—we will not have a domestic independent oil business. I will go out of business, not because I want to because I love what I do, but exploration drilling will no longer be a viable investment option. My partners will not risk their money, and I won't risk mine.

So let me repeat it: If we do away with the expensing of intangible drilling, there will not be a domestic independent oil industry. It will not be a question of whether we have enough cash-flow to drill 40 percent or 50 percent or 60 percent of the wells that we are currently drilling; we won't even be in the business.

One last point about IDC's. We have been as an industry investing at 100 percent and more of our cash-flow back into drilling new wells. If we were taking that money and buying CD's or bonds or just living high, we would get not one dime's worth of incentive out of IDC's. The only way that IDC's is an incentive at all is if you get out and drill new wells. I suggest that that ought to be what the Congress wants our domestic industry to do.

If there is unfairness in the Tax Code, we would ask you to address it, even to the beefing up of alternative minimum taxes; but please do not do something that would cause a vital industry to disappear and leave us helpless in the hands of foreign producers.

Thank you.

The CHAIRMAN. Mr. Hogland.

[Mr. Goodrich's written testimony follows:]

PREPARED TESTIMONY OF HENRY GOODRICH

I feel I have a job of the utmost importance before me today. It won't be easy since oil men (and I am one) enjoy a very low credibility rating with many members of Congress, especially those from what is usually called the "consumer states" of the north and east. I will also tell you up front that I think all oil companies and Independents should pay taxes and if some are avoiding paying taxes I should also fire my CPA because I sure pay taxes. I might also add that we reran my 1984 tax return based in Treasury II as if it had been the law and I would have paid 2 1/2 times the taxes I actually paid, which were already significant.

In Treasury II, depletion is phased out and that hurts. Where it really hurts is in the drilling dollars that I and my partners and all Independents will have available to spend. Independents incidentally drill some 80±% of the domestic wells and are responsible for finding 60% of the reserves. In nearly every year for the last several years we have spent over 100% of our cash flow which is I might add typical of Independents. When that information was presented to the House Ways and Means Committee by a witness for the IPAA one congressman derided it and said that we must have a lot of "suckers" if they keep investing more money than they get back. But I am not talking about just outside investors, I am talking about me. The way I do it and most like me, is borrow against reserves that I am finding or have found. For example, if my interest in a new well has a reserve value of $100,000 and I spent $25,000 to find it, I feel that I am doing good. If I need to spend another $25,000 on the next well and that exceeds my cash flow I borrow money against the last well. Obviously, someday I am going to have to pay the piper either by selling some reserves or spend a period of slack drilling to pay off the debt. Again, let me say that this is typical of Independents.

I don't really expect all of you to believe all of what I am telling you today but what I do hope is that you will not dismiss it outright - that you will consider it a possibility and take a hard and prudent look at the Independent industry. As I told you, we drill 80% of the wildcats and find 60% of the oil. Send your staff into our offices - my office for example. We will share our books with you and I know others will too.

If after that, if convinced, we trust you will pass a tax law that makes sure we do our part but not one that will put us out of business and leave this country helpless in the hands of foreign producers.

Now to the central point, the point I need to get across to you today. I know that most of you must feel the necessity of having a domestic energy industry. I know you do. If you realize that we are now importing 35% of our crude oil needs from people who would love to double the price the minute they are in the drivers seat - if you know that we have gone from 300 trillion cubic feet of gas reserves to less than 200 - if you know when prices went up we got out and found as much gas as we used - if you know that increased oil drilling raised the future life of reserves from 4 years to 6 years - if you know that without that drilling there would only be 2 years of domestic reserve life left instead of that 6.

If you know all this, you must see the necessity for a domestic industry and yet when we see people seriously proposing changes in the tax laws that would effectively do away with the domestic oil industry, it is hard to understand.

So here's that central point. Some are talking about on top of all the negatives that I have stated - and are in Treasury II, the elimination of expensing IDC's. Now this may sound like bombast but it is the solemn truth - If you do that there will be no Independent domestic oil industry. I will go out of business, not because I want to, but because exploration will no longer be a viable investment option. My partners will not risk their dollars and I won't risk mine.

Let me repeat it - there will be no Independent domestic oil industry if you do away with the expensing of IDC's. It won't be a question of whether we will have enough cash flow to drill 25% or 40% or, whatever, of the wells we're now drilling - we won't even be in the business.

Let me underline a specific point about IDC's. If we were taking our oil revenue and buying government bonds or putting it in C.D.'s or living high - we would get no benefits from IDC's. The only way we get one dime of tax incentive from IDC's is to get out and drill new wells.

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My message today is that depletion loss is going to hurt our industry tremendously. It's going to mean less exploration dollars, less investors, less wells drilled, less production, less new reserves and more bankruptcies. These are our problems but more importantly, to you and this country, it means that we are going to be more dependent on foreign crude oil.

Let me tell you where our industry finds itself today. A surplus, short range though it is, of domestic natural gas. A domestic market which has shrunk from 22 trillion cubic feet of gas per year to 16.25 trillion. Prices per thousand cubic feet have declined from $3.50 to 2.40(±). Almost more important than the price is that we are having trouble selling enough for a positive cash flow at any price. Every day my asset - which is gas in the ground - is less than the day before. Independent's collateral for loans which they have made for exploration are the value of those reserves. If prices decline, obviously values decline and also collateral values decline. Any Independent who had what was considered the upper limits of conservative prudent debt two years ago is in danger of bankruptcy today. Oil prices, as you know are also declining.

All of these problems, gas prices, oil prices and demand are the result of the market place. We have pounded the table for many years to let the market place work and we are prepared to live or die in it. There will probably be a reordering of our industry and some weeding out - but the industry will adjust to the market place and survive.

Also no one can gripe about Congress lowering the top tax bracket for American citizens but it nevertheless is a disincentive for risk investment, i.e. oil drilling. When the top bracket went from 70% to 50% it dried up a lot and from 50% to 35% will make that risk investment even less attractive. Removal of investment tax credit hurts. In short, our industry is in deep trouble.

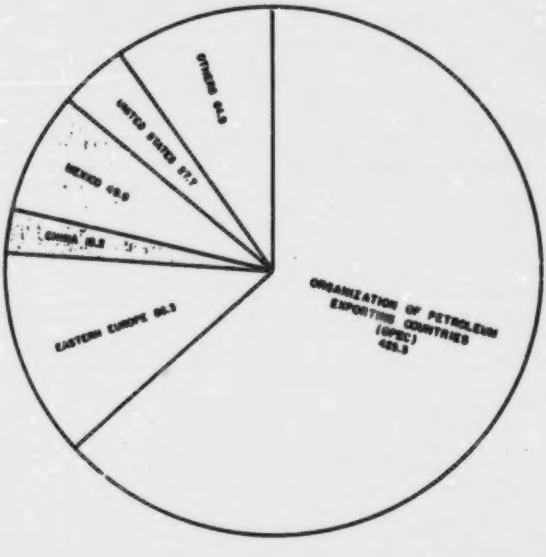
ESTIMATED WORLD CRUDE OIL RESERVES BY MAJOR PRODUCING AREAS

AS OF JANUARY 1, 1984

(BILLIONS OF BARRELS)

EXHIBIT A

WORLD TOTAL 672.3



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ESTIMATED PROVED WORLD RESERVES OF NATURAL GAS BY AREAS
AS OF JANUARY 1, 1984
(TRILLIONS OF CUBIC FEET)

EXHIBIT B

WORLD TOTAL 3,270.2

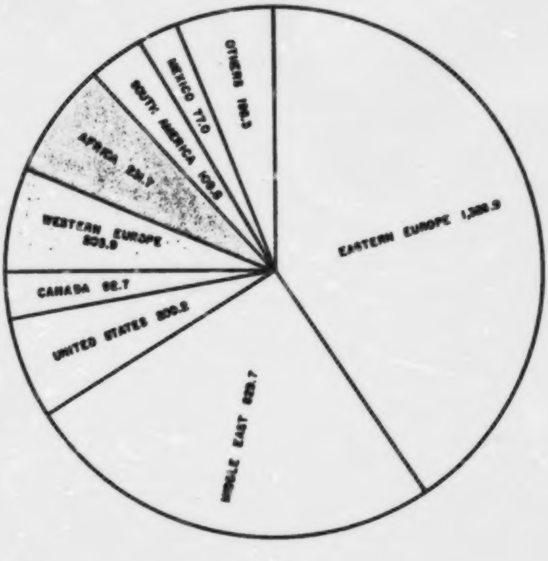
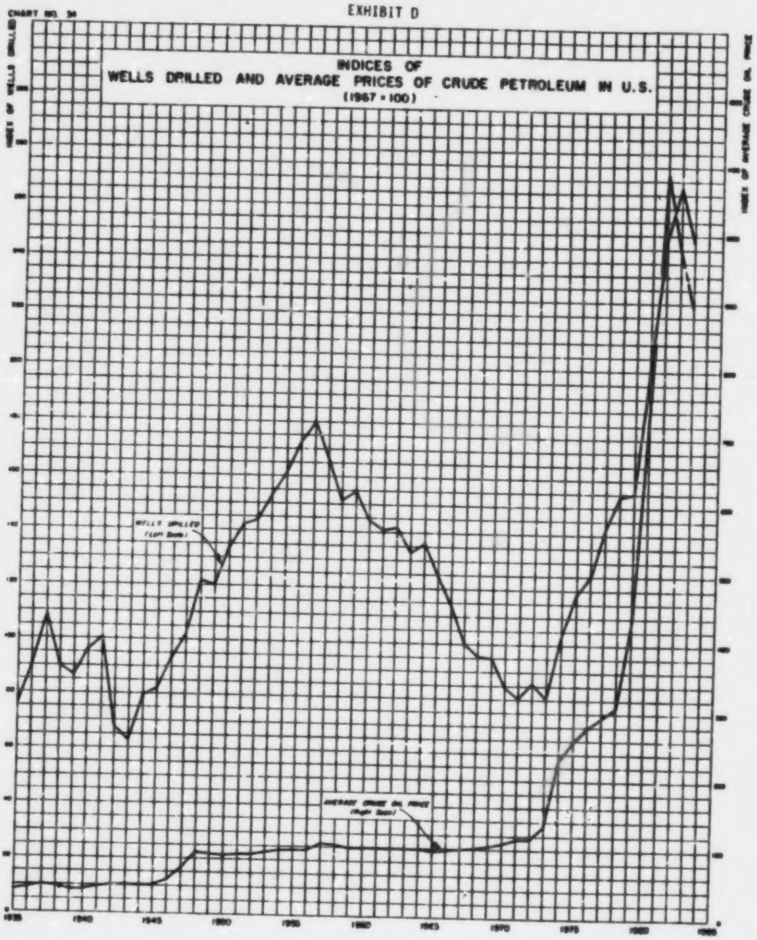


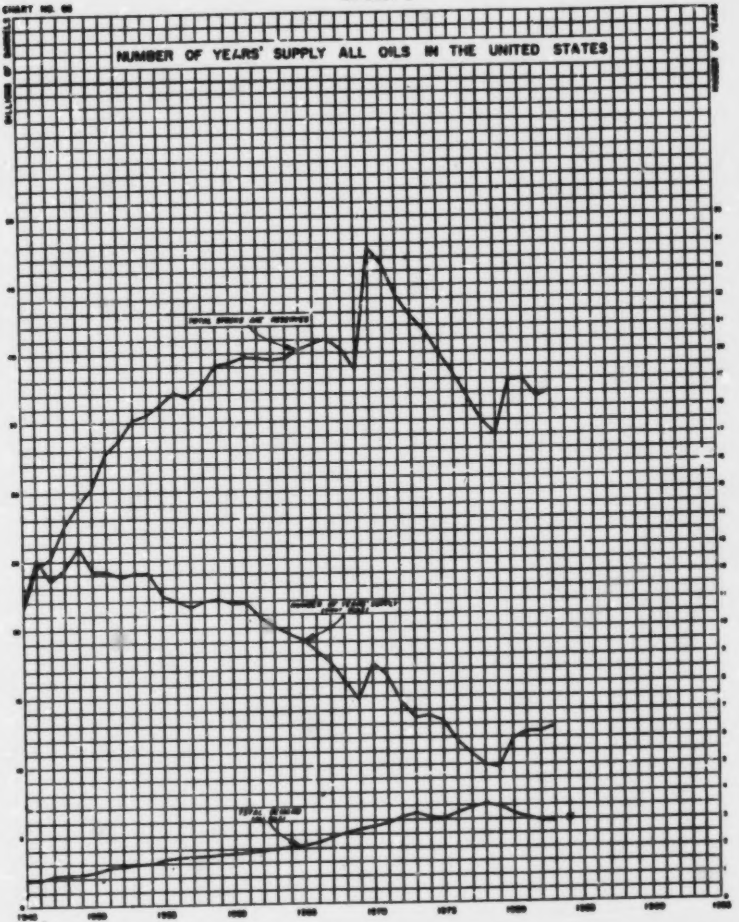
EXHIBIT D

CHART NO. 34



INDICES OF
WELLS DRILLED AND AVERAGE PRICES OF CRUDE PETROLEUM IN U.S.
(1967 = 100)

EXHIBIT C



STATEMENT OF FORREST HOGLUND, PRESIDENT AND CHIEF EXECUTIVE OFFICER, TEXAS OIL AND GAS CORP., DALLAS, TX

Mr. HOGLUND. Mr. Chairman, I am Forrest Hoglund, president and chief executive officer of Texas Oil and Gas, one of the largest independent oil and gas companies in the United States. We are the largest driller of new gas wells in the United States for the last 2 years, have over 9,000 miles of natural gas gathering systems also.

I come to the hearing today with mixed feelings. The independent oil and gas industry, as you have heard from a number of witnesses, is in very deep recession or depression, and you have heard all the reasons behind that. In light of the current conditions in the industry, it doesn't seem desirable to even consider a new tax law which would have, at least initially, a negative effect on the drilling of wells.

However, the whole concept of trying to get the tax reform package in, I think, the need to change the current tax law to provide fairness, and trying to get simplicity, and to promote longer term general economic growth, I think overrides some of the concerns at least from our position that we have about the impact on domestic drilling.

Therefore, I do support this proposal as it stands today.

The President's tax proposal would cause our tax payments to go up for the first 2-year period, and then hopefully they would be lower in subsequent years. And as the most active driller of gas wells in the United States, we would do our best not to reduce our own level of drilling because of the initial tax consequences; but, on the other hand, I don't think that this would hold true throughout the industry, for some of the reasons you have heard today.

One thing that would happen, and we have already seen a decline in it, is that investment in publicly and privately offered drilling fund syndications I imagine would go down again. They have already dropped to a quarter of what they were in 1981 when the tax rate was lowered from 70 to 50 percent, and I think if you dropped the personal rate on down to 35 percent you will see additional change in this.

I don't consider that necessarily a negative effect, because I think that is the whole concept of the tax reduction package and the fairness situation, where we are trying to get investment opportunities made on the basis of hard economics.

The point of the bill that I think is good is the leaving of the IDC expensing in. That is extremely critical to the industry at this time. I keep hearing numbers that are way overblown about how important that would be as a revenue raiser; I have heard numbers as high as $32 billion over a 5-year period. That came when you considered Treasury I. That number is high for about four reasons:

One, that number was based on a 46-percent tax rate, which isn't even the tax rate we are talking about in this bill now; we are talking about 33 percent—or this proposal. It also included dry holes, which I do not think is either politically feasible, right in any sense of the word, and really, most of the properties are written off as the dry hole is drilled, and you wouldn't get that kind of effect anyway.

We have already seen a reduction in drilling from when that estimate was made, and if you expense intangibles, as Mr. Goodrich said, you would see an extremely sharp drop in drilling again. And the maximum number I could put on this over a 5-year period might be $9 billion, less than $2 billion a year. So it is not an enormous thing, and you are risking national security, and I think you are risking economic security also in trying to consider that sort of thing.

So to me, it was a very wise thing to leave in there, and that is the one thing that would cause our company to severely change the level of drilling we are talking about, if that was not included.

The other reason I think you do not want to change that is the economic reason right now. We are getting the equivalent effect, probably, of like an $8 to $10 billion tax cut bcause of the declining energy prices we are seeing. A good part of that is from natural gas. It is caused by the drilling level. We don't like it in the industry, but I must say it is there, it is caused by competitive forces, and the economy is enjoying it. And I think if you do away with the intangible expensing, that you are going to see that corrected—which many of us would like to see corrected—but I think it would be corrected much, much faster.

We also have another situation in our industry where the Federal Energy Regulatory Commission is trying to increase competition in gas markets in spite of all these problems we have, and I support those things; but I am just saying that if that happens, I think you are also going to see probably even a further reduction in drilling incentive over the short term.

So while I may have a little different message, a little different story than some other people, I think it is important for the long run that we try and correct some of these tax things, and I think that we will see, as the individuals get the tax rate cuts, get the money in their hands, that the long-range benefits will really take care of some of these short-range problems that we have heard about.

The CHAIRMAN. Mr. Durand.

[Mr. Hoglund's written testimony follows:]

STATEMENT OF FORREST E. HOGLUND
PRESIDENT, AND CHIEF EXECUTIVE OFFICER
TEXAS OIL & GAS CORP, DALLAS, TEXAS
on the
PRESIDENT'S TAX REFORM PROPOSAL
PRESENTED TO THE
SENATE FINANCE COMMITTEE
July 17, 1985

Mr. Chairman, members of the Committee, I am Forrest Hoglund, President and Chief Executive Officer of Texas Oil & Gas Corporation (TXO) based in Dallas, Texas. I appreciate the opportunity to share my views with you today on the President's Tax Reform Proposal.

TXO is one of the largest independent oil and gas companies in the United States. We are a publicly held company listed on the New York Stock Exchange. We were the largest driller of new gas wells in the United States in each of the last two years and have been among the top three drillers for the past six years. TXO currently participates in the annual drilling of more than 1,500 wells. We also own over 9,000 miles of principally intrastate natural gas pipelines located throughout the country. Our purpose is to develop and gather domestic natural gas supplies as well as drill for crude oil. We have consistently spent over two times our net income each of the last ten years to find and gather new supplies.

I come to the hearings today with mixed feelings. The independent oil and gas industry is in a deep recession, with oil and gas prices dropping sharply and a large number of companies and individuals in financial trouble. Profits have been reduced substantially and there have been an increasing number of

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bankruptcies and major financial write-offs by all sizes and types of companies. The effects have spread to all segments of the business and into the banking community as well.

Perhaps the most significant effect for the United States has been the sharp drop in domestic drilling. Currently, there are only around 1,900 active drilling rigs versus about 2,400 last year at this time, and only about 40 percent of the operable rigs are functioning. This is not enough activity to replace the reserves being produced, which certainly is not good for the long term outlook of domestic energy. I personally do not feel we have seen the bottom either.

In light of the current conditions in the industry, it does not seem desirable to consider a new tax law which will, at least initially, have a negative effect on the drilling of new wells. However, the need to change the current tax law to provide fairness, simplicity, and to promote general economic growth, overrides our concern of the Proposal's impact on domestic drilling; and I am supporting the President's Tax Proposal as it stands today.

Since 1982, TXO has paid $162 million in federal income taxes and $180 million in state, local and windfall profit taxes. We do our drilling with internally generated and borrowed funds and do not rely on funds from tax partnerships. We have no foreign operations and, therefore, no foreign tax credits. The President's Tax Proposal would cause our tax payments to increase for the first two-year period and then, hopefully, they would be lower in subsequent years. As the most active driller of gas wells in the United States, we would do our best to not reduce our own level of drilling because of the initial tax consequences of the Proposal, but I do not think that this will hold true throughout the industry.

The reasons I feel drilling activity will be somewhat diminished initially are that most profitable companies will pay a higher tax the first several years, the minimum tax will affect some independents and the incentive to form drilling tax shelters or partnerships will be reduced significantly. The investment in publicly and privately offered drilling fund syndications and limited partnerships began to dwindle when the maximum marginal personal income tax rate was lowered from 70 percent to 50 percent. In fact, from 1981 to 1982, the dollars spent in drilling funds dropped from a total of $2 billion to $1 billion. As of 1984, the funds declined to around $450 million and the number of sponsors has decreased by half in three years.[1] With the maximum personal rate dropping to 35 percent, any residual value of tax motivated investment will be lessened once again; but I do not consider that a negative effect. Let me emphasize that the proposed rate reductions should send capital into investment opportunities based on hard economics rather than tax incentives, be that oil, real estate, or new services. We share the belief that much of the capital from shelters would then be used in a more productive and efficient manner.

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[1] Statistics provided by Investment Search, Millersville. Maryland.

In TXO's case, and I suspect for most of the industry, the effect of the lower corporate tax rate is more than offset by loss of the investment tax credit and the recapture of accelerated depreciation in the early years. Insightfully, the President's Tax Proposal continues the expensing of intangible drilling costs (IDC's). Were this to be eliminated, the negative effects on the industry would be severely compounded, and contrary to my previous statement, TXO would not be able to maintain its present high level of drilling. Such action would reduce the availability of internal funds for reinvestment, decrease credit worthiness, and more importantly, for some companies, deny them access to capital markets.

In the debate over the expensing of IDC's, I sense an overstated value of the additional cash taxes that would be paid if they were required to be capitalized. In the Treasury I Proposal, the additional tax revenues for capitalizing all intangibles including dry holes were estimated to be $32.1 billion over a five-year period. That was before reducing the tax rate to 33 percent. Our analysis[2], based on the assumptions of Treasury I and a 33 percent corporate tax rate, shows tax revenues increasing over five years (1986-1990) by $12.1 billion, with an additional $5.0 billion if dry hole costs are capitalized. In the cases I will mention subsequently, we have dispensed with consideration of capitalizing dry holes because, in reality, it would generate little revenue as most leases that yield unsuccessful wells are, as an industry practice, abandoned in the year they are drilled. Also, I do not believe it is politically feasible or equitable in any sense of the word to consider such treatment.

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[2] Data obtained from Arthur Andersen Survey.

Not all the assumptions of Treasury I are still valid. The decline in oil and gas prices since its announcement has already driven the rig count 15 percent lower. Considering this, the tax revenue estimate is reduced from the $12.1 billion to $10.3 billion. Supposing that drilling activity would decline an additional 15 percent in response to repealing the expensing of IDC's, which I believe is the minimum effect, the tax revenues would fall to $8.8 billion. That is less than $2 billion per year on average. In fact, even these revenue estimates are really overstated since they do not account for the losses and, therefore, lack of tax payments by a number of companies over the next five-year period.

I believe, as my examples illustrate, that the tax revenue to be raised by capitalizing IDC's is not nearly as significant as originally indicated in the Treasury I Proposal, but the consequence to drilling activity would be severe. There are other very practical reasons why it is not wise to change it.

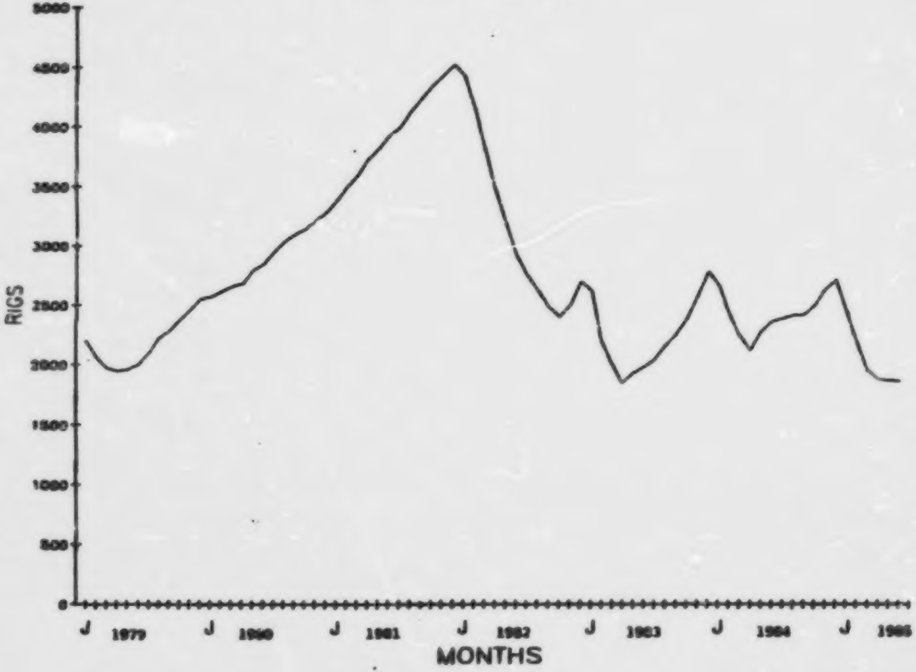
In the natural gas markets, we are presently experiencing a surplus of deliverability, in part, as a result of the high rate of drilling during the period 1980 to early 1983 (see Appendix I). This surplus has produced an average reduction in spot gas prices of 50c per 1000 cubic feet (MCF) over the past six months. If that level of price reduction spreads throughout the industry, the result would amount to about $8 billion savings per year to consumers.

In addition to falling oil and gas prices, the recent proposals by the Federal Energy Regulatory Commission (FERC) to increase competition within natural gas markets will probably lead to further price pressures and reduced incentives to drill wells. However, just as in the case of the tax bill, we view the FERC actions to be beneficial to the long-term performance of the industry as well as contributing to improvements in operating efficiencies and support their adoption.

Our first priority is to assist you, Mr. Chairman, and others in drafting an equitable, pragmatic piece of legislation that can survive the legislation process and become law.

Now is the time for a bipartisan effort to accomplish a fair overhaul of our tax system. We recognize that not only ourselves, but others might suffer additional negative effects in the process, particularly in the short term. However, we would be less than responsible as citizens if we failed to offer to work with you towards achieving a tax system that in the long run produces such positive results. Thank you for your consideration.

I will be happy to answer any questions and elaborate on the points that I have raised.



ROTARY RIGS RUNNING
HUGHES COUNT

ANALYSIS OF REPEAL OF IDC
UNDER TREASURY TAX PROPOSAL

(Amounts in Billion $)

I. Repealing the expensing of IDC assuming a 33% corporate tax rate and 1984 drilling activity of 2428 rigs yields additional tax revenue as follows:[1]

	1986	1987	1988	1989	1990	Total
IDC Tax Revenues[2]	4.2	2.9	2.3	1.6	1.1	12.1
Dry Holes Capitalized	1.9	1.2	.9	.6	.4	5.0
Total	6.1	4.1	3.2	2.2	1.5	17.1

II. Assuming drilling activity drops 15% to the current level of 2048 rigs and the tax rate is 33%, then tax revenues are:

IDC Tax Revenues	3.5	2.5	2.0	1.4	.9	10.3

III. Assuming drilling activity drops in response to the repeal of the expensing of the IDC by an additional 15% to 1741 rigs from the current level of 2048 and the tax rate is 33%, then tax revenues are:

IDC Tax Revenues	3.0	2.1	1.7	1.2	.8	8.8

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[1] Arthur Andersen Survey Analysis

[2] These revenues are overstated since they do not account for losses and hence lack of tax payments by a number of companies during the five year period.

STATEMENT BY FRANCIS L. DURAND, VICE CHAIRMAN, FEDERAL TAXATION, NATIONAL ENERGY POLICY COMMITTEE, TEXAS INDEPENDENT PRODUCERS AND ROYALTY OWNERS ASSOCIATION, SAN ANTONIO, TX

Mr. DURAND. Thank you, Mr. Chairman, Senators Long, and Bentsen.

My name is Francis Durand. I am vice chairman of the national energy policy committee of Texas Independent Producers and Royalty Owners Association, and I have with me Mr. Shelby Pitts, president, and Mr. Julian Martin, executive vice president, Mr. Ken Burke, who is director of service for the energy industries; Ernst & Whinney, and also a member of the committee.

I am going to limit my comments to two areas. First of all, I would like to point out to you that the depletion allowance which presently is in the Tax Code is something which was built in many, many years ago and is part of the oil and gas producers' economic viability.

In particular I would like to point out that the President's proposal does allow certain producers, independent producers of stripper wells, to maintain their depletion allowance. It is important to note that that type of production, stripper well production, accounts for approximately 15 percent of the Nation's domestic crude oil supply—450 million barrels per year. About one-third of this comes from the State of Texas. If that depletion were to be lost, it has been estimated that it would eliminate 849 million barrels of recoverable reserves, 30 million barrels of annual production, and eliminate 69,000 American jobs. We would hope that certainly this would not happen.

I would like to turn now very briefly to some comments that were made earlier today in connection with the tax incentives or tax bias, tax preferences, as opposed to the windfall profit tax.

In this particular statement, it was said that the tax preferences could give you $1.10 a barrel, and the windfall profit tax would be as high as $5. I have no idea where those figures come from, because I can tell you that the windfall profit tax on $26 a barrel will range from less than 50 cents or zero up to a maximum of about $4.

Second, the windfall profit tax only applies to oil. The loss of percentage depletion and intangible drilling and development costs applies to both oil and gas. The loss of percentage depletion to an independent producer means he loses $1.95 per barrel, not $1.10. The loss of the intangible drilling deduction could be anywhere from $1 to $2. So if you compare those, the comparison doesn't quite be the same.

Further, I would like to point out, in this same article the following comment was made in connection with oil and gas producers, that every time they drill for oil their costs are lower by the amount of their tax break on the intangible drilling costs. Therefore, all producers drill too much and use other means of discovering oil too little. The tax preferences raises the overall cost of finding oil.

I would like to know, and I am sure that others would like to know if there is a better way of finding oil than drilling wells.

BEST COPY AVAILABLE

I would like now to talk about some economics. What would happen if Treasury I or Treasury II, the administration's bill was adopted? Let's take a simple example. Assuming an oil and gas operator was investing $100,000 a year—a small operator—$100,000 a year in drilling wells. He was successful and found gas. Gas sold at $3 an MCF. He gets back over a period of 10 years somewhere in the neighborhood of 2 to 1, a little better than 2 to 1 on his investment.

Now let's assume that another investor, investor B, who puts the same amount of money in over the same period of time, and he gets back exactly the same dollars. So the only different is taxes. What is the effect of taxes? The effect is this: Under Treasury I the independent oil and gas operator would have his cash reduced by 31 percent. The other investor, only 7 percent. Under the administration's proposal, the oil and gas investor's cash would be reduced 9 percent, and the other gentleman would have his cash flow increased 6 percent.

If you were going to put your money, would you put it where the risk is, or would you put it where there isn't so much risk involved? That is what is going to happen if these proposals are adopted.

A similar example can be shown using a cash certificate of deposit. I won't get into that in detail, because it is in my testimony which has been submitted.

Thank you.

The **Chairman**. Mr. Jansma.

[Mr. Durand's written statement follows:]

Mr. Chairman and Members of the Committee:

My name is Francis L. Durand, and I am a consultant for the firm of Ernst and Whinney, located in its offices in San Antonio, Texas. I appear here today as Vice Chairman on federal taxation of the National Energy Policy Committee of the Texas Independent Producers and Royalty Owners Association or "TIPRO." TIPRO is composed of 5,400 independent producers and royalty owners who have an interest in Texas petroleum production.

The Administration's proposed revisions to the Internal Revenue Codes (IRC) would impose additional tax burdens upon the domestic oil and gas exploration and production (E&P) industry. Particularly impacted are the nation's 15,000 independent producers and two million royalty owners who specialize in E&P activity. Unfortunately, such reduction in cash flow is applicable to investments which involve substantial economic risks but which must continue if the United States is going to avoid future over-reliance upon foreign sources of energy. The proposed revisions on the other hand favor, through a reduced tax burden, investments which may have lower business risk and which may not serve such important national interests.

Are Drilling Incentives Justified?

Proponents of tax reform and elimination of drilling incentives for domestic petroleum rest their case largely on two propositions: (1), domestic drilling should be discouraged rather than encouraged to preserve U.S. petroleum reserves for the future; and (2), the domestic oil and gas producing industry does not pay its fair share of taxes. Producers strongly disagree with both propositions.

Oil and gas cannot be found and produced without an orderly, continuous program of drilling wells. Discontinue or reduce sharply drilling activity, and there will be much less in the way of reserves to save for future use. Until oil or gas has been proved through actual drilling, we have no reliable indicator of the extent or location of our nation's untapped oil and gas reserves. Even using the most sophisticated techniques for detecting and drilling for hydrocarbons, a third of the wells drilled in this nation are dry holes!

Loss of incentives would reduce efforts by the industry to improve oil and gas recovery techniques. The U. S. oil and gas industry has discovered approximately 400 billion barrels of oil, for example, since the industry began in 1869. About one-third of the volume has either been produced or can be produced with current recovery techniques. Every 1.0 percent improvement in recovery provides four billion barrels, or more, than the industry produces in a year. Unfortunately, enhanced recovery methods are very risky and expensive. Increased costs, such as presented in tax reform proposals, only serve to reduce industry activity in this vital area.

Producers strongly believe they already are paying their fair share -- and more -- of the nation's federal, state and local taxes, and recent studies support this contention. Statements made at the Senate Committee on Energy and Natural Resources hearings in New Orleans, Louisiana, on March 15, 1985, illustrate this point. Of particular relevance is a statement in a study of the Joint Committee on Taxation of Congress showing "that the 1983 average U.S. tax rate is 16.7 percent of U.S. income for all its sample companies, while there is a rate of 21.3 percent for the petroleum industries alone." (Printed record of the hearings -- page 73, emphasis added.) Dr. Larry Crumbley, an energy accounting profressor at Texas A & M University, notes the petroleum industry's tax rate rises to 40 percent when windfall crude oil tax revenues are included.

It also should be noted the cash flow of oil and gas operators have not escaped adverse tax legislation during the past decade. Additional tax burdens have been imposed through the substantial reduction in allowable percentage depletion deductions, recapture of IDC, changes in the minimum tax provisions, imposition of a windfall profit tax, curtailing the IDC deduction, etc.

Industry Activity Depressed

New tax burdens contemplated by tax reform proposals would occur at a time when the domestic oil and gas producing industry is already beset with dropping prices, higher costs and a weak market for natural gas. Crude prices have dropped some 26 percent since 1981, while natural gas prices at the wellhead continue to drop steadily -- more than 25 percent for new gas discoveries in the past 18 months.(a)

Reflecting these problems, along with the uncertainty posed by Washington plans for tax reform, the producing industry in Texas has decreased its utilization of drilling rigs by 33 percent during the past six months.(b) Further decrease in this

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(a) Indicators, June, 1985, The Texas Railroad Commission, page 25.

(b) "The Oil Daily", Hughes Rig Count, December 1984 and June 1985.

VITAL ACTIVITY IS ANTICIPATED. THE INEVITABLE RESULT IS COMPARABLE REDUCTION IN DISCOVERED RESERVES, ALREADY EVIDENCED BY DATA SHOWING DECLINE IN ADDITIONS TO TEXAS OIL RESERVES OF 26 PERCENT SINCE 1979.(c)

TEXAS UNEMPLOYMENT HAS BEEN AGGRAVATED BY THE DECREASE IN EXPLORATION AND DEVELOPMENT ACTIVITY. THE NUMBER OF INDUSTRY RELATED JOBS IN TEXAS HAS DECREASED BY 33,000 SINCE 1981.(d)

NATIONAL SECURITY IMPAIRED

ANY U.S. TAX CHANGE THAT ENCOURAGES DECLINE IN DOMESTIC PETROLEUM DRILLING ACTIVITY HAS NATIONAL SECURITY IMPLICATIONS. WHILE THE NATION HAS AGAIN ASSUMED AN AIR OF COMPLACENCY OVER THE AVAILABILITY OF ENERGY, CURRENT SURPLUSES IN SUPPLY MAY WELL BE SHORT LIVED AS THE SEARCH FOR PETROLEUM DROPS SHARPLY.

IT IS TRUE THAT CONSERVATION MEASURES AND WORLDWIDE RECESSION HAVE DECREASED DEMAND FOR OIL AND GAS DRAMATICALLY IN RECENT YEARS. ALSO, MANY FREE WORLD NATIONS OUTSIDE OF OPEC HAVE DEVELOPED SUBSTANTIAL RESERVES DURING THE PAST DECADE.

(c) "NOTES TO OIL STATES," GAIL GEMBERLING, TEXAS RAILROAD COMMISSION, PAGE 2.

(d) INDICATORS, JUNE 1985, THE TEXAS RAILROAD COMMISSION, PAGE 12.

NEVERTHELESS, A CLOSER LOOK AT THE ENERGY PICTURE INDICATES SUPPLY PROBLEMS WILL SOON REOCCUR. THE DROP IN ENERGY PRICES IS SLOWING DOWN CONSERVATION EFFORT. EASING OF RECESSION CONDITIONS IS INCREASING FREE WORLD DEMAND. PRODUCING NATIONS OUTSIDE OPEC, INCLUDING THE UNITED STATES, ARE PRODUCING OIL VIRTUALLY AT CAPACITY; THEREFORE, ANY SIGNIFICANT FUTURE INCREASES IN DEMAND WILL HAVE TO COME FROM THE CARTEL'S MEMBERS. MORE IMPORTANTLY, ANY DECREASE IN U.S. OIL PRODUCTIVE CAPACITY WILL ALSO HAVE TO BE COVERED BY OPEC.

THOSE UNCONCERNED WITH THE NATIONAL SECURITY IMPLICATIONS OF INCREASED OIL IMPORTS INTO THE UNITED STATES POINT OUT THAT WHILE THE NATION CURRENTLY RELIES ON IMPORTS FOR MORE THAN 35 PERCENT OF TOTAL SUPPLY, ONLY ONE-SIXTH OF THE IMPORTS COME FROM OPEC NATIONS. THEREFORE, IT IS CLAIMED, THE UNITED STATES IS IN POSITION TO AVOID OVER-DEPENDENCE ON THE VOLATILE MID-EAST HOME OF THE LEADING OPEC PRODUCING NATIONS.

HOWEVER, PERIODIC MID-EAST WARFARE POTENTIAL STILL HOLDS A VERY SERIOUS THREAT FOR THE UNITED STATES FOR TWO REASONS. AS ALREADY POINTED OUT, FUTURE DEMAND INCREASE WILL HAVE TO BE MET BY OPEC COUNTRIES IN THE ABSENCE OF POSITIVE U.S. POLICY TO INCREASE DOMESTIC ENERGY CAPABILITY. SECONDLY, OUR ALLIES IN EUROPE AND JAPAN IMPORT APPROXIMATELY 90 PERCENT OF THEIR CRUDE

OIL REQUIREMENTS, PRIMARILY FROM OPEC NATIONS, THEREBY GREATLY INCREASING DEPENDENCE BY THE UNITED STATES AND ITS ALLIES ON UNSTABLE GOVERNMENTS IN THE MIDDLE EAST.

CURRENT UNITED STATES RELIANCE ON IMPORTS IS A COSTLY FACTOR IN THE NATION'S SERIOUS BALANCE-OF-TRADE DEFICIT. IN 1984, THE COST OF PETROLEUM IMPORTS APPROACHED $60 BILLIONS OF DOLLARS, OR MORE THAN HALF OF THE NATION'S DEFICIT. OIL IMPORTS ARE BEGINNING TO INCREASE ONCE AGAIN, WHICH WILL ONLY AGGRAVATE THIS SERIOUS ECONOMIC PROBLEM.

THE ENERGY INFORMATION ADMINISTRATION IN ITS JANUARY 1985 ANNUAL ENERGY OUTLOOK PUBLICATION PROJECTED OIL IMPORT DATA THAT UNDERLINE HOW SERIOUS THE SITUATION IS BECOMING. 1985 CRUDE AND OIL PRODUCT IMPORTS ARE EXPECTED TO COVER THE SAME SHARE OF DOMESTIC DEMAND EXPERIENCED IN 1974, WHEN THE THEN SECRETARY OF THE TREASURY FOUND IMPORT LEVELS TO BE A THREAT TO NATIONAL SECURITY.

BY 1990, THE IMPORT LEVEL WILL MATCH THAT OF 1978 WHEN THE THEN SECRETARY OF THE TREASURY DETERMINED A GREATER SECURITY THREAT EXISTED THAN IN 1974. FINALLY, IN 1995, IMPORTS ARE EXPECTED TO REACH 52 PERCENT OF DOMESTIC DEMAND, OR FIVE

PERCENTAGE POINTS HIGHER THAN ANY LEVEL EXPERIENCED IN HISTORY.(E)

CONCLUSION

ATTACHED TO THIS STATEMENT IS AN ANALYSIS OF THE ADVERSE EFFECT ON DOMESTIC PETROLEUM EXPLORATION AND DEVELOPMENT OF THE ADMINISTRATION'S TAX REFORM PROPOSAL. TIPRO URGES THAT THIS ANALYSIS BE GIVEN CAREFUL CONSIDERATION. SINCE CURRENT INDUSTRY ECONOMIC CONDITIONS ARE ALREADY EXTREMELY SERIOUS, LEADING TO SHARP REDUCTION IN EXPLORATION AND DEVELOPMENT ACTIVITY, THIS ASSOCIATION BELIEVES THAT ANY CHANGE IN NATIONAL TAX POLICY SHOULD ENCOURAGE RATHER THAN DISCOURAGE VITAL EXPLORATION FOR DOMESTIC RESERVES.

(E) "THE TREASURY DEPARTMENT'S VIEW OF OIL IMPORTS IN 1975, 1979 AND 1984: A STUDY IN CONTRASTS", G. HENRY M. SCHULER, PAGES 13 & 14.

APPENDIX A

Analysis of the Adverse Effect
on
Petroleum Exploration and Development
# of the
Administration's Tax Reform Proposal

Prepared by

Francis L. Durand, CPA - Vice Chairman for Taxation,
National Energy Policy Committee of TIPRO

Kenneth M. Burke, CPA - National Director - Energy
Industry Services, Ernst & Whinney
Member - TIPRO National Energy Policy Committee

Oil and gas operators must take many factors into consideration in deciding whether or not to acquire oil and gas properties (normally through a lease), drill exploratory wells on such properties and complete wells which have encountered potentially productive formations. The key factor normally considered is simple economics - a stated amount of dollars will be expended and such expenditures should provide an acceptable return in view of the risk taken. Estimated returns are based upon risk-adjusted computations and such returns must be compiled on an after-tax basis (net cash flow).

Good business judgement and sound economic planning not only supports, but demands, business decisions to invest funds in activities which will produce the greatest financial return to the investor, absent any other compelling factor. Granted, entities actively conducting oil and gas E&P operations may not completely terminate exploratory and development activities because of an increase in tax burdens. One scenario, however, which can be relied upon with a high degree of certainty, is that a curtailment of exploration and development activities may very well result from an increase in tax burdens. And, the extent of the curtailment will be related to the degree of the increased tax burden. The foregoing statement is particularly true with respect to those activities funded by independent oil and gas operators and investors. A majority of the exploratory wells drilled in the continental United States are so funded.

In order to illustrate the principles discussed above, computations have been made based on the following assumptions:

(1) Operator A, an independent oil and gas operator, is a corporation which has been investing for the past four years, and will continue to invest for the ensuing ten years, $100,000 annually in E&P activities. The investment is allocated on the basis of 3% to leasehold costs, 30% to equipment and 65% to intangible drilling and development costs (IDC).

(2) The activities provide additions to natural gas reserves of 100,000 MCF of gas for each $100,000 invested. Such reserves are produced at a rate of 20% for the first year with a gradual decline over the following nine years.

(3) The sales price for gas production is $3.00 per MCF, with no escalation. Severance taxes are 7.5% of the sales price and lease operating expenses are $6,000 per year (for each year's additions to reserves).

(4) Investor B, a corporate entity, has invested $100,000 per year over the past four years in projects which provided it with a pre-tax cash flow equivalent to that obtained by Operator A. Investor B will continue making such investments over the next ten years. Each of Investor B's annual investments are amortized, ratably, over the ten year period beginning with the year of investment, in proportion to the pre-tax cash flow received each year.

(5) Operator A and Investor B have no other income and incur no costs other than those associated with the investments referred to above.

The following table sets forth an analysis of Operator A's and Investor B's after tax cash flow for the ten year program outlined above, based on existing provisions of the IRC, provisions contained in the 1984 Treasury proposal and the current Administration proposal:

	Existing Law	Proposals (1)	
		Treasury	Administration
Operator A's Cash Flow:			
Undiscounted	$943,185	$655,246	$852,373
Present Value at 10%	$594,074	$400,242	$540,728
(Decrease) From Existing Law:			
Undiscounted		(30.53)%	(9.63)%
Present value at 10%		(32.63)%	(8.98)%
Investor B's Cash Flow:			
Undiscounted	$781,461	$726,669	$829,168
Present value at 10%	$489,780	$453,327	$519,306
Increase (Decrease) from Existing Law:			
Undiscounted		(7.01)%	6.10%
Present Value at 10%		(7.44)%	6.03%

Note (1) - It is assumed that the provisions of these proposals applicable to revised corporate tax rates would be effective as of the beginning of year.

The foregoing analysis readily illustrates that the oil and gas operator is being severly penalized under both the Treasury and the Administration proposal. The following comments are applicable to such analysis:

(1) The only factor which has a bearing on the differences between Operator A's and Investor B's cash flow is income taxes. Pre-tax cash flow is identical.

(2) From a pure economic (dollars of cash flow) standpoint, under the Treasury proposal, Operator A would be better off following Investor B's investment program rather than its program of investing in E&P activities. Investor B's undiscounted net cash flow and the present value thereof, under this proposal, exceed those applicable to Operator A by $71,423 (11%) and $53,085 (13%) respectively.

(3) Under the Administration's proposal, Operator A's undiscounted net cash flow and the present value thereof both decrease while those applicable to Investor A increase. The percentage changes from decreases to increases are 15.73% and 15.01% respectively. Such swings may readily influence a decision to follow a program comparable to Investor B's, in lieu of Operator A's program of investing in E&P activities, in view of the high risk factor inherent in E&P activities, coupled with the extremely adverse economic conditions surrounding such activities at this time.

It is extremely difficult to envision enacting legislation which will increase tax burdens of independent oil and gas operators who are presently fighting for economic survival. Such increases, if enacted, will undoubtedly result in a curtailment of E&P activities and, as a result, additions to available domestic hydrocarbon reserves will be reduced.

The illustrative computations assume a ten year program of $100,000 annual investments. What would happen if Operator A had, at the outset, decided to compare a single investment of $100,000 in the E&P program at the beginning of year one to a comparable investment in a certificate of deposit bearing interest at 10% per annum. In making such a comparison an assumption is made that taxable income from either investment would be taxed at the highest corporate rate. The comparison would indicate the following:

	Existing Law	Administration Proposal	Increase (Decrease)
Investment in E&P:			
Cash flow for ten years, net of original investment:			
Undiscounted	$80,400	$80,100	$(300)
Present value at 10%	$44,800	$44,300	$(500)
Investment in CD:			
Cash flow from interest income:			
Undiscounted	$54,000	$67,000	$13,000
Present value at 10%	$34,800	$43,300	$8,500

The spread between the present values applicable to the E&P investment and the certificate of deposit investment noted above is only $1,000 under the Administration's proposal compared to $10,000 under existing law. The $10,000 spread may be considered worth while to incur the risks associated with the oil and gas investment, but the $1,000 spread would be nowhere near adequate consideration to compensate for such risks. It should be noted that the applicable spread would be even worse in subsequent years when the percentage depletion deduction is completely phased out, or if the computation were made on the basis of the applicable income being subject to the graduated corporate tax rates.

Where an independent oil and gas producer has revenues from existing properties, the proposed phase-out of the deduction for percentage depletion can have a substantial negative impact. It should be noted that the existing provisions of the IRC limit the application of the percentage depletion deduction both as to category and amount of production. Accordingly, this deduction is still important to a substantial number of small producers who participate in E&P activities. Taking away this deduction will reduce the cash available to these producers to fund their participation in E&P activities, making such participation less attractive due to the reduction in the potential after-tax return. In effect, the percentage depletion deduction is an important factor in an independent operator's economic planning. Elimination of this deduction will require revamping plans related to invested funds.

A question may arise as to what impact elimination of the percentage depletion deduction for royalty owners may have on E&P activities. The answer is relatively simple - the royalty owner has a depletable asset and if that entity's after tax cash flow is decreased through additional tax burdens, recouping the reduction in cash flow through higher lease bonuses and/or royalty percentage interests would be a logical route for the royalty owner to follow. Who pays the additional cost - the operators, the entities who have to look to their after tax return from production for their return on investment.

No attempt has been made in this presentation to refer to the impact of the proposed revisions to the IRC on a specific operator's planned exploratory activities. Such information may be introduced by other interested parties. Further, a substantial amount of such data is available in the record of the hearings before the Committee on Energy and National Resources of the United States Senate on the "Proposed Treasury Department's Tax Simplification Plan on the Oil and Gas Industry" at New Orleans, La. on March 15, 1985.

Specific provisions which adversely impact the oil and gas industry's exploration activities through an increase in applicable tax burdens relate to the following:

	Proposal	
	Treasury-1984	Administration-1985
Eliminating deduction for intangible drilling and development costs (IDC)	X	
Eliminating percentage depletion deduction	X	X
Eliminating investment tax credit	X	X
Changes in depreciation deductions	X	X
Changes in minimum tax provisions		X
Changes in the treatment of limited partnerships	X	

The adverse impact of the provisions noted above are partially offset by the reduction in applicable tax rates. However, the net impact is still adverse, as previously illustrated. The Administration's proposal is an improvement on the Treasury's proposal but it still has a negative impact on the oil and gas industry.

References have been made to the fact that the oil and gas industry has been "subsidized" by so-called incentive provisions of the IRC. These provisions are risk balancers. Congress saw fit to provide these balancers many years ago to offset the substantial risks which were inherent in oil and gas exploratory activities. Continued investment in such activities was deemed necessary to enhance the nation's available domestic hydrocarbon reserves. The availability of these tax provisions over an extended period of time has become a vital part of the economic environment surrounding the search for, and production of, oil and gas. Since these provisions have been available, the search for new reserves has become much more costly, involving the probe of deeper formations, offshore locations, etc. It is very difficult to understand the logic behind restricting and/or eliminating the "incentive" provisions at a time when the economics applicable to oil and gas exploratory activities make an investment in such activities much riskier than they were when these provisions were first enacted.

If you were Operator A, in the illustrations previously presented, the data so presented would indicate that the impact of the Administration's proposal on the present value of your after tax cash flow over the ten year period involved would be a decrease of 8.38%, compared to Investor B's increase in the present value of after tax cash flow for the same period of 6.03%.

Would such information have any bearing on your decision as to what type of investment program you would follow, i.e., an oil and gas E&P program or investments comparable to those made by Investor B? If you are looking for the best place to put your dollars, considering the risks inherent in oil and gas E&P activities, the oil and gas E&P program would lose out. Such a decision, multiplied manyfold, would redirect funds which would otherwise be invested in an effort to increase the nation's available domestic hydrocarbon reserves. A corollary effect would be an increase in the reliance on foreign sources of energy from hydrocarbon reserves with the accompanying detrimental impact on national security and trade balances.

STATEMENT OF SIDNEY JANSMA, CHAIRMAN, TAX COMMITTEE, ROCKY MOUNTAIN OIL AND GAS ASSOCIATION, DENVER, CO

Mr. JANSMA. Thank you, Mr. Chairman.

I am Sid Jansma, Jr. I am in the oil and gas exploration business with my father in Grand Rapids, MI. My written testimony was submitted jointly with that of Jon Rex Jones earlier.

I would like to address several perceptions regarding oil and gas taxation.

The first perception is that the oil and gas industry doesn't pay its fair share of taxes. The reality is that no industry in America can match the petroleum industry's payments. You have heard a lot about that this morning.

I would like to address your attention to the large pie chart on the side of the room. A study by the Joint Tax Committee showed that the oil industry had 21 percent of the income of the companies included in the study, whereas they paid 28 percent of the taxes.

Another perception is that current petroleum industry tax provisions result in an unfair benefit to certain taxpayers. The reality is that these tax provisions accomplish exactly what they were intended to do, which is to permit investment of an extraordinary amount of capital required to finance domestic exploration and production.

As the next large chart illustrates, which is data from the U.S. Census Bureau, it shows that the total investment by independent producers for exploration and development exceeded their revenue for a 10-year period. The numbers actually show that for every dollar of gross revenue, the independents invested a dollar and eight cents.

At first you may say, "This seems outrageous." You may ask, "How can any industry or company continue to spend more than it makes year after year?" However, this is a true reflection of the economics in the oil and gas business. It reflects the harsh reality that in our industry there are a signficant number of outright losers where investment in any given year may be a total loss or produce much less income than the amount invested. Despite improved technology, this remains a very high-risk business. That is one of the reasons it is so important that we are able to attract outside capital.

Another perception is that, regardless of how much drilling is done in the United States, our reserves are so depleted that there can be no improvement in domestic production. The reality is, the sharp decline in oil production of the early 1970's was halted, and production stabilized by the increased efforts of independents who drilled almost 250,000 wells in a 6-year period ending in 1984, and that is twice the amount of wells that were drilled in the preceding 6-year period. I can assure you that any change in tax laws will increase or decrease the amount of drilling that we can do.

Another perception is that percentage depletion is a production subsidy completely lacking in economic merit. The fact is that percentage depletion accurately reflects the underlying economics of our industry.

Let me give you an illustration. In real estate, when you have recovered your full costs through depreciation, you still have an asset left; the building is still there. In oil and gas, after you have spent your money you have a well, which may or may not be producer; but after it is finished producing there is no residual value whatsoever. I can assure you, as a matter of fact, that 30 percent of the wells that we drill are dry and have no value at all, even in the beginning. The fact that the asset has no value in the end of its useful life is an important difference. This illustrates that production of an oil and gas reserve is comparable to an installment sale of a capital asset. Each dollar of revenue that we receive is a mixture of both capital return and income.

One of the purposes or percentage depletion is to ensure that a producer pays taxes on his income but not on his return of capital.

In addition, percentage depletion also recognizes the harsh reality that income from successful wells must also return the capital of all the dry holes together with the successful wells.

The last perception I would like to address is that expensing of intangible drilling costs is some sort of artificial accounting method. The label "intangible" is misleading; a more accurate term would be "expenses for unrecoverable items for exploration and drilling." The fact is that IDC's are real expenses, spent every day for items like fuel, wages, and supplies, which have no recovery value after expended.

What many people do not realize is that all of the tangible expenditures in drilling wells are capitalized, including the cost of the drilling rigs.

In conclusion, Mr. Chairman, with the domestic industry now operating at only one-half the needed level, having idled almost 60 percent of our drilling rigs, adoption of drastic energy tax changes could collapse what is left of our exploration effort. In addition, our chronic balance of payments would worsen, and OPEC's influence over energy markets and over our foreign policy would be strengthened.

Mr. Chairman, we are talking about keeping long-tested equity provisions that have been recognized since 1913 and that are vital if we are to provide unprecedented investment in the most capital-intensive high-risk industry in America. The necessity to provide such investment is not just idle speculation; without it, energy security for the Nation will be lost perhaps never to be restored.

Thank you very much.

[Mr. Jansma's written statement follows:]

SYNOPSIS OF TESTIMONY OF S. J. JANSMA, JR.
On Behalf of Rocky Mountain Oil and Gas Association

- The present differential tax treatment of oil and gas exploration and production activity is not preferential tax treatment. It is simply a reflection of the differing economics of the activities being taxed.

- The petroleum industry has been subjected to tax reform. No other industry has been subjected to so many specific negative tax changes of a major nature during the past fifteen years.

- Present petroleum industry tax provisions accomplish exactly what they were intended to do, that is, permit investment of the extraordinary amounts of capital required to finance domestic exploration/production activity to develop domestic oil and gas resources.

- To radically alter in a negative way the tax treatment of the only industry positioned to provide fuel for the economy and national security over the next fifteen to twenty years would be classic case of government working at cross purposes.

- Changes in exploration and development activity are just as sensitive to changes in tax treatment as they are to price changes. Particularly in times such as the present with declining oil and gas prices, the impact of negative changes in tax treatment would be magnified.

- Percentage depletion reflects the underlying economics of the oil and gas industry. Percentage depletion is necessary because:

    1) Oil and gas producers must discover their capital assets;

    2) Oil and gas properties have no residual value;

    3) Percentage depletion approximates installment sale treatment of capital assets;

    4) Replacement costs get more expensive over time; and,

    5) Successful wells must provide return of sufficient capital to cover the cost of unsuccessful wells.

- Provision for current expensing of intangibles is required to put oil and gas producers on a neutral tax basis with other industries which currently deduct similar expenditures, i.e., current expenditures for items which, once acquired, have zero capital value.

- Intangible drilling costs are analogous to research and development expenditures in that they must be expended before it is known whether a capital asset will result from the expenditure.

Requiring capitalization of intangible drilling cost would distort tax neutrality because completion and operating decisions for wells would then be influenced by the tax treatment of such expenditures.

Conclusion

1. The reasons for granting differential tax treatment for oil and gas exploration and production are as compelling today as when those provisions were first enacted at the inception of the income tax.

2. Energy tax policy must not be influenced by short-term market fluctuations but instead must focus on the long-term requirement of achieving energy independence.

3. Tax provisions are the most efficient and effective tool for accomplishing our energy goals. Current tax provisions are a vital force in encouraging investment of the unprecedented amounts of capital required over the next decade to achieve our energy needs.

The **Chairman**. Mr. Hoglund, you are the largest driller of new gas wells in the United States?

Mr. **Hoglund**. That's right.

The **Chairman**. And that is independent or nonindependent, either way?

Mr. **Hoglund**. Right.

The **Chairman**. And you are also a signficant driller of oil wells?

Mr. **Hoglund**. Yes.

The **Chairman**. Now, you have come to the conclusion that you can live with this bill. I assume you couldn't if we took away the intangible drilling costs.

Mr. **Hoglund**. Right.

The **Chairman**. But as it is written, you can live with it?

Mr. **Hoglund**. Right.

The **Chairman**. And you think over the long haul it is not going to result in the rack and ruin of your industry?

Mr. **Hoglund**. I do not believe so, no. And I know it is tough, but I mean you really have to kind of look at whether you want tax reform change or not.

The concept of this proposal is that you are going to lower personal income tax rates. Business is such that it has been targeted in that to pay additional taxes—General Motors, IBM, Texas Oil & Gas, the individuals in the oil and gas business—and so the fact that most people are not saying up here that is there is the fact that the income tax rate on corporations is going to be lowered to 33 percent to help offset some of these——

The **Chairman**. I understand that. But what I am trying to find out is if there is something unique to your company that does not adhere to other companies that at least on the surface appear to be in the same business.

Mr. **Hoglund**. I don't really think so. I mean, we are all competing with one another and because of the tax laws the way they are, percentage depletion may be more important to somebody else, intangibles may be even more important to someone, the windfall profit tax may be more important. I think the capacity of people and independent operators to adjust to an environment where they have a low tax rate probably might surprise even them.

The **Chairman**. Mr. Goodrich, do you represent companies that are roughly like Mr. Hoglund's?

Mr. **Goodrich**. We have companies that are large independents—obviously not as large as his, because his is the largest.

The **Chairman**. I understand, but in the same business.

Mr. **Goodrich**. Yes; we have some 1,200 members of the Louisiana Association of Independent Producers & Royalty Owners.

The **Chairman**. And you have come to the conclusion that if this bill passes the industry is going to go rack and ruin.

Mr. **Goodrich**. Yes; what I said is that if Treasury II is passed, it is going to hurt. It is going to hurt primarily in the amount of money we have to reinvest into drilling wells.

I am not saying that there would be no industry if Treasury II passes. I went a step further than that and said, if you add doing away with the IDC's, it is no longer a viable investment.

The **Chairman**. Well, Mr. Hoglund says that, too, if you do away with the intangibles.

Mr. **Goodrich**. Yes.

The **Chairman**. He is premising his answers on the bill as it is presently before us.

Mr. **Goodrich**. I understand that.

The **Chairman**. And you are saying the bill as presently before us. You are just not as optimistic as he is about the continued viability of the industry, even with the deduction of the intangibles.

Mr. **Goodrich**. We have just seen our reserves domestically decline so rapidly and in a very short time, that we feel that any tax bill that takes money away from the drilling of new wells domestically is a shortsighted policy, that finding new reserves and keeping ourselves where we have some semblance—we certainly don't have energy independence when we are importing 35 percent of our daily fuel oil needs, or 30 percent. But we feel that the incentive the depletion gives the independent to go at full all-out pace to drill new wells, we spend everything we get our hands on drilling new wells, is more important to the United States than whatever tax dollars you would get by doing away with depletion.

The **Chairman**. Mr. Jansma.

Mr. **Jansma**. Senator Packwood, the one thing that is important is that the percentage depletion is limited to the first 1,000 barrels of production, or equivalent gas. And as a company is larger, that may not have the impact that it would on a smaller company.

In my case, I drilled 23 wells last year, and the percentage depletion does affect me.

The other thing that is important is that the independent industry is comprised of about 15,000-20,000 operators who are smaller. We are not all big, though that may be our goal. And it is the multiplicity of effort by all of these people who do have percentage depletion that makes the difference on the drilling.

The **Chairman**. Mr. Durand, go ahead.

Mr. **Durand**. Well, I would like to add to what he just said the fact, also, that the lower tax rate is not effective until you get up to the higher tax brackets. So, in effect, the reduction of the tax rate to a small operator does not offset the loss of percentage depletion by any means. The example I quote shows that.

The **Chairman**. You quoted what?

Mr. **Durand**. The example I quoted in my testimony shows that.

The **Chairman**. Senator Long.

Senator **Long**. Mr. Goodrich, the point was touched on by one of the witnesses here that you have already had a very big tax cut because your income has been reduced so drastically already.

Now, in addition to the other problems you have discussed here, it may be, before this bill is passed, that we are not going to be able to reduce that rate as much as it has been talked about. I guess you heard the reports; the estimates are showing that there is not nearly the income in the bill that was anticipated, and so at the moment the bill is estimated to be a substantial revenue loser.

Now, some of these tax increases in this bill are not going to become law, I can tell you right now, from hearing the other witnesses testify, that there are revenue raisers that are not going to pass. If that is the case, we are not going to be able to give you that big tax cut.

Where would you be if you get the tax increases that are in the bill and you don't get the tax cut that is supposed to be in the rate?

Mr. Goodrich. Well, as I said, we are in deep trouble without any new taxes. [Laughter.]

You know, one of the ironies about the tax as it affects our business is, if you go out and drill a well and it costs $1 million, and you are lucky enough that it is productive—odds are when you start it'll be dry—and it is productive, and you produce it 2 or 3 years and get back $500,000, and the well goes dry, and you have lost on that venture $500,000, and yet you have paid taxes on a partial return, in addition to that, you have a windfall profit tax. And in that particular case, which unfortunately is an everyday occurrence, that there are wells that don't ever pay out, you have not only paid taxes on your revenues, you have paid a windfall profit tax on that production. And when you have lost $500,000 on the well, it is hard to find where the profit was.

I don't see our industry, in the state that it is in today, taking on new taxes and being a viable industry. Treasury II, as I said, is going to hurt the industry, and beyond that we're killed.

The Chairman. Senator Bentsen.

Senator Bentsen. Mr. Chairman, one point that I haven't heard is what this means to our trade deficit if you really cut back on drilling in this country and become more dependent.

We had a $123 billion trade deficit last year, and the Department of Commerce says it may hit $160 billion, and for the first time in 72 years we have become a debtor country, that means by 1990, if we continue the present course, we will owe $1 trillion to the rest of the world. That means the average family of four will have assumed a debt of an additional $15,000 that they have to service. They won't have anything to show for it.

There is no question in my mind that if you knock out IDC's, you severely curtail drilling and production in this country and you are more dependent on foreign oil. Economic consequences, plus the defense consequences for our country. I just think that is indisputable.

I do share the concern over the depletion allowance, because that is a depleting asset. I think it is a realistic provision in the bill.

Mr. Chairman, I think most of the questions that I would have asked have been asked. Sorry I haven't been able to be here through the whole hearing, but I have been presiding over a hearing about two floors above.

The Chairman. That is the inevitable problem we all have.

Senator Bentsen. That's right. Thank you.

The Chairman. Gentlemen, I have no more questions. It is most helpful. Thank you.

[Whereupon, at 12:55 p.m., the hearing was concluded.]

[By direction of the chairman, the following communications were made a part of the hearing record:]

STATEMENT OF CONGRESSMAN GLENN ENGLISH

Mr. Chairman, about two weeks ago, President Reagan presented to the nation the details of his proposed 1985 tax reform legislation. Unfortunately, Mr. Chairman, as is often the case, what was presented as tax reform, really meant tax increases to many individuals and businesses.

This is particularly true with respect to the independent oil and gas business, and even more so with respect to oil and gas royalty owners. The President's proposal, for example, would discontinue the percentage depletion allowance on oil and gas production except for those wells classified as "stripper wells," for oil and gas producers, and would discontinue the percentage depletion allowance on all production for royalty owners. I submit, Mr. Chairman, that if this provision is adopted, it will deal a severe blow to the economies of petroleum-producing states, and would certainly increase the tax burden of all those who happen to fall into the category of royalty owners. To say nothing of the adverse effect such tax legislation would have on our ability, as a country, to reduce our dependence on imported oil and gas with the adverse impact such imports have on our balance of payments problems.

Mr. Chairman, I opposed these tax increases before they were announced, I oppose them now, and I will continue to oppose them with all the fight in me because I feel they are unfair, and they are bad national policy.

Unfortunately, Mr. Chairman, as you well know, the stage has been set for a tremendous struggle between representatives of producing states in Congress and representatives of non-producing states. But, Mr. Chairman, of equal importance, these proposals attempt to drive a wedge between those who produce our oil and gas, and those who own the royalty from which this production occurs. We cannot afford to succumb to this divide and conquer tactic. All those who own oil and gas minerals should at least be treated equally and fairly with those who produce these minerals. If any change must be made, it must be made fairly. If percentage depletion is to remain for producers, it should also remain for royalty owners. If percentage depletion is to be phased out on certain production for producers, it should likewise be phased out, not immediately dropped, for owners of royalty.

Some would argue that there is no such thing as a fair tax, and I probably would agree. But there is such a thing as fair treatment under our tax laws, and the President's proposal as presently written certainly does not fall within the bounds of fairness.

I want to assure you, Mr. Chairman, that I will join you in your efforts to revise this legislation in a way that will restore fairness and equity for all under our tax laws, and I hope we will be successful in restoring incentives necessary to assure a strong and viable oil and gas industry now and in the future.

WRITTEN TESTIMONY OF THE APPALACHIAN PRODUCER COALITION BEFORE THE SENATE FINANCE COMMITTEE
JULY 17, 1985

Mr. Chairman and Members of the Committee:

This testimony is submitted by Mr. Michael Linn, Vice President of Meridian Exploration Corporation and Mr. Bruce Wolf, General Counsel of Atlas Energy Group, Inc., on behalf of a coalition of oil and natural gas producers in New York, Pennsylvania, Ohio, and West Virginia. That coalition includes: the Independent Oil and Gas Association of New York, the Pennsylvania Natural Gas Associates, the Ohio Oil and Gas Producers Association, the Independent Oil and Gas Association of West Virginia, the Ohio Oil and Gas Association, and the Pennsylvania Oil and Gas Association.

We present this testimony because we feel the Appalachian Basin independent producers have a unique perspective that is not reflected by the testimony you received from other representatives of the oil and gas industry at the tax reform hearing on July 17th.

The Appalachian Basin is located in western Pennsylvania, southern New York, eastern Ohio, and most of northern and western West Virginia. Besides being the birthplace of both the crude oil and natural gas production industry of the United States, more than one-third of the total number of gas wells drilled each year in our country are drilled in this region. Responding to the shortages of 1978 in the natural gas industry, there has been a large number of new wells drilled in this Basin, with corresponding increases in potential oil and gas reserves. The companies we represent are typically small and rely very heavily on outside investments in order to raise the capital to drill wells. Similarly, our discoveries are typically small, stripper or marginal producers, although they tend to produce reliability over long periods of time.

We recognize in times of surplus, such as the present, it may be easy to minimize our role in the nation's energy supply; however, that would be a short-run view both becauee of the reserves we do develop as well as our strategic geographical location. While we do not typically discover huge reserves compared to southwestern producers, our discoveries are crucial for Appalachia since we provide the lowest cost incremental supplies for that region. Because our gas does not have to be transported over long distances, we are able to become a reliable supplier of local industry that might not have energy supplies available to it in cases of shortage or national security demands. However, because our wells typically have a long, slow payout period, we are direct evidence that rewriting the tax incentives in this industry would reduce drilling of new wells substantially.

We share the Administration's views that the oil and gas tax preferences are vital to keeping this industry healthy and helping to cushion the impact of a cutoff of foreign oil or sudden increase in domestic demand for natural gas. Without repeating the testimony that you have already heard that we are presently drilling at 40% of where we were in 1981, which would be further reduced if the capital cost recovery of the oil and gas industry is further diluted, most of our companies would not be able to maintain our present business activity if the incentives are significantly reduced.

We would also like to point out that our production is located in one of the most heavily populated areas of the nation. Millions of people rely upon oil and natural gas to heat homes and fuel businesses. In the interest of our domestic security, it would be reassuring to know that if anything would happen to the long interstate pipelines which deliver energy from the Southwest there is a viable regional supply available.

A significant percentage of the natural gas produced in the Basin is delivered directly to industry in northwest Ohio and western Pennsylvania through what is generally know as "self help" arrangements. The proximity of this production to regional industry along with the long-lived nature of our reserves offers industry a unique opportunity for natural gas supplies that can be counted on in times of shortage. Being close to the markets makes the production less expensive to transport. The normal effect of self help arrangements has been to reduce the price of energy to industry and give them an alternate supply of gas if curtailed by their distribution company. Due to the fact that many people heat homes with gas, the need to have supplies close at hand in times of spot shortages due to cold snaps or other reasons is real. The availability of these supplies depends to a great degree upon the ability of the producers to drill new wells. Many of these wells would not be drilled but for the intangible drilling cost depletion.

The nature of our Basin and the types of geological formations we face make the reserves we discover and the economics of our wells unique when compared to other regions of the country. Appalachian Basin wells are marginal producers -- largely stripper wells. Our natural gas wells typically produce at about 70 Mcf a day for the first year or so and then at between 10 Mcf and 50 Mcf per day for the next twenty years. Our oil wells produce a very high grade of crude, famous the world over for engine lubricants. However, the wells almost universally will produce at a rate of less than 10 barrels per day. Under the current economic and tax conditions, it usually takes more than five years for the average well to payout (investors to receive their initial investment). As prices fall further, this payout period is being extended even more. On the other hand, we know our wells will payout eventually. Although they are low producers, they are less risky. The well completion ratio is 95% compared with a 65% average for other regions of the nation, and although not all completed wells are truly successful in a profit sense, there is a much better chance of drilling a productive well. Our wells attract investors, therefore, because of a higher probability of drilling a productive well, the certainty of limited, but extended production, and our proximity to large gas markets. Any oil and gas drilling involves additional risk, and this risk makes investment in Appalachian drilling far less attractive than other competing investments if it were not for some type of incentives.

We acknowledge the value of the underlying principles of the President's tax reform: those of equity, fairness, and neutrality. However, we strongly support the Administration's view that the strength of the oil and gas industry must be maintained in order to have a readily accessible domestic source of oil and gas and decreased reliance on potentially unreliable foreign sources. Our region is strong evidence that without economic incentives exploration and development of energy resources will be severely curtailed. For example, if we were to lose the intangible drilling costs and depletion allowance and other credits for our gas wells as in Treasury I, our price per Mcf of gas would have to increase 38% to enable us to offer our investors the same return on their investment. Obviously this price would make our product unmarketable in today's markets. In order to offer a rate of return acceptable to investors, we must either have tax incentives or be able to get higher prices.

The Appalachian producers characteristically produce natural gas from tight formations, designated "tight sands" areas which allow them to receive a section 29 tax credit in lieu of higher prices. Because the President's proposal also eliminates this credit, to take away the intangible drilling cost deductions and depletion allowance at the same time, is particularly damaging to exploration in this geographic area.

Therefore, we strongly advocate that the intangible drilling costs as well as depletion be maintained for all wells. Otherwise, it is our projection based on a survey of Appalachian producers that the number of new wells in the Appalachian region will be reduced by almost 70%. Similarly, capital investment will fall by more than 70% over the next three years - a loss of more than $2 billion to this industry in our four state area. This is even more important, Mr. Chairman, because of the already deteriorating nature of the economy in the Northeast. Much of our industry has been hurt by recent economic setbacks in the steel and manufacturing sectors. Employment also will suffer as oil and gas producers, who operate in the more rural areas of the region where jobs are scarce, will lay off large numbers of their employees. In this regard, those industries that rely upon us for their energy supplies through self-help natural gas transportation programs that provide direct sales of natural gas between local producers and local mills and plants will suffer. Many will face even more difficulties in being able to compete. This will not only mean the loss of as many as 4,000 jobs in the oil and gas production industry but potentially in the other Appalachian area industries that rely upon us for cheaper, local energy supplies in order to remain more competitive.

Mr. Chairman, we urge this Committee to resist the pressure to stereotype the oil and gas industry. There must be careful consideration of geographical regions and the unique economics of oil and gas development in areas such as the Appalachian region. We are not the large oil and gas companies who have large sources of internationally-generated capital to fall back on. We do not plan drilling programs two, three or four years in advance. But rather, we rely on our year-to-year ability to attract small investors. The life blood of our producers is the availability of capital to drill additional wells and to attract outside investment to drill those wells. Without tax incentives we cannot offer the rate of return necessary to attract investment.

The future development of the oil and natural gas reserves in the Appalachian Basin depends upon the maintenance of the present law which provides tax incentives for

drilling new wells. If the deduction for intangible drilling costs and percentage depletion for oil and natural gas wells is maintained, we feel the Appalachian Basin oil and gas industry can continue to survive and add to the national security by contributing to our energy independence.

BACARDI CORPORATION
BEFORE THE COMMITTEE ON FINANCE, UNITED STATES SENATE, ON ENERGY TAX INCENTIVES - S.1220 AND THE ADMINISTRATION'S TAX PLAN

JULY 17, 1985

I. INTRODUCTION.

GOOD MORNING, MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM MARK J. RIEDY, COUNSEL TO BACARDI CORPORATION, HEADQUARTERED IN PUERTO RICO, AND AN ATTORNEY IN THE WASHINGTON, D.C. LAW OFFICES OF SPRIGGS, BODE & HOLLINGSWORTH. I AM SUBMITTING THIS BRIEF WRITTEN TESTIMONY CONCERNING S.1220,[1] ENTITLED THE "RENEWABLE ENERGY AND CONSERVATION TRANSITION ACT OF 1985," AND THE ADMINISTRATION'S TAX PLAN, ON BEHALF OF THE COMPANY.

BACARDI CORPORATION IS ONE OF FEW UNITED STATES COMPANIES RECYCLING NONFOSSIL ORGANIC WASTES INTO ENERGY AND VALUABLE CO-PRODUCTS THROUGH A PROCESS OF ANAEROBIC DIGESTION. THE COMPANY, WITH ITS PATENTED ANAEROBIC DIGESTION SYSTEM, BIOLOGICALLY FERMENTS THESE WASTES IN AIRTIGHT BIOMASS ENERGY EQUIPMENT TO PRODUCE BIOGAS. IN TURN, THIS BIOGAS, A BACTERIAL CREATION OF APPROXIMATELY 60 PERCENT METHANE-AND 40 PERCENT CARBON DIOXIDE-CONTAINING GAS IS CONVERTED INTO FUEL OR ELECTRICITY. UNLIKE NATURAL GAS, WHICH IS NON-RENEWABLE, METHANE IS A PARTICULARLY VALUABLE ALTERNATE ENERGY SOURCE, BECAUSE IT IS RENEWABLE AND

BECAUSE, ON THE BASIS OF BTU CONTENT, IT IS AN APPROXIMATE SUBSTITUTE FOR NATURAL GAS.

II. POSITION - S.1220.

A. STATUS OF THE ANAEROBIC DIGESTION INDUSTRY.

WE WELCOME THIS OPPORTUNITY TO PRESENT TO THIS DISTINGUISHED SENATE PANEL OUR VIEWS, FULLY SUPPORTING THE EXPRESS QUALIFICATION OF ANAEROBIC DIGESTER SYSTEMS AS BIOMASS PROPERTY FOR THE 10 PERCENT ENERGY INVESTMENT TAX CREDIT ("EITC") IN S1220. WE FURTHER SUPPORT THE THREE-YEAR PHASEDOWN EXTENSION OF THE QUALIFICATION PERIOD FOR THE USE OF THIS CREDIT (I.E., 10 PERCENT - 1986 AND 1987, 5 PERCENT - 1988, TERMINATION - JANUARY 1, 1989). WE HOWEVER, DO NOT SUPPORT THE ADMINISTRATION'S MAY 29, 1985 TAX PROPOSAL, WHICH WOULD ALLOW THIS CRITICAL BIOMASS EITC TO EXPIRE ON DECEMBER 31, 1985 WITHOUT EXTENSION.

1. THE AGRICULTURAL AND MUNICIPAL MARKETS

THE ANAEROBIC DIGESTION INDUSTRY PRIMARILY GENERATES REVENUES THROUGH TWO PRINCIPAL INDUSTRY SEGMENTS: 1) THE AGRICULTURAL AND 2) THE MUNICIPAL MARKETS.

IN THE AGRICULTURAL MARKET, ANAEROBIC DIGESTER SYSTEMS ARE UTILIZED IN THE TREATMENT OF FERMENTATION PROCESSING WASTES, DISTILLATION EFFLUENT, FOOD PROCESSING RESIDUES, AND ANIMAL WASTES. THIS MARKET PRESENTLY INCLUDES A SMALL

NUMBER OF COMPANIES COMMERCIALLY MARKETING METHANE DIGESTERS.

BACARDI CORPORATION OPERATES THE WORLD'S LARGEST POTABLE RUM SPIRITS PLANT AT A PLANT SITE IN PUERTO RICO. SUGAR CANE MOLASSES IS THE BASIC FEEDSTOCK FOR RUM FERMENTATION. THE FERMENTATION BROTH IS SUBSEQUENTLY DISTILLED WITH RUM SPIRITS BEING THE PRIMARY PRODUCT AND SLOPS, OR "MOSTOS," BEING THE EFFLUENT FROM THE DISTILLERY COLUMNS. THE COMBINED MOSTOS AND FERMENTATION SOLIDS HAVE A HIGH CONCENTRATION OF ORGANIC MATTER OR BOD IN THE EFFLUENT STREAM.

BACARDI CORPORATION HAS DEVELOPED A UNIQUE PROCESS THAT REDUCES THE HIGH STRENGTH ORGANIC WASTE AND PRODUCES A METHANE-RICH BIOGAS. THE COMPANY COLLECTS AND USES BIOGAS IN THE PLANT'S BOILERS TO PRODUCE PROCESS STEAM. THE COMPANY, AT PRESENT, CONVERTS APPROXIMATELY 60 PERCENT OF THE ENTIRE PLANT'S EFFLUENT STREAM TO BIOGAS WHICH SUPPLIES APPROXIMATELY 40 PERCENT OF THE SITE'S FUEL ENERGY REQUIREMENTS. IN 1983 AND 1984, THE BACARDI CORPORATION, DUE TO THIS SYSTEM, SAVED APPROXIMATELY $750,000 OF FUEL OIL IN EACH YEAR.

ALTHOUGH THE SAVINGS ON IMPORTED FUEL OIL IS CERTAINLY A PLUS FACTOR IN THE OVERALL VIEWPOINT OF THE COMPANY'S OPERATION, BACARDI CORPORATION MUST COMPARE THE SAVINGS WITH THE INVESTMENT IN THE BIOGAS GENERATION EQUIPMENT OR ANAEROBIC FILTER DIGESTER. THE ANAEROBIC FILTER DIGESTER IS A LARGE STEEL TANK OF 120 FEET IN DIAMETER AND EXCEEDING FORTY FEET IN HEIGHT. IT HAS A CAPACITY OF 3,500,000

GALLONS. THE DIGESTER IS FILLED WITH PLASTIC MEDIA THAT SUPPORT THE MICROORGANISMS RESPONSIBLE FOR CONVERTING THE WASTE TO BIOGAS. THE COMPANY, THROUGH THIS DIGESTER, GENERATES APPROXIMATELY 1,500,000 CUBIC FEET OF GAS PER DAY. THE ANAEROBIC DIGESTER TANK AND ALL THE OTHER SUPPORT VESSELS, EQUIPMENT, AND INSTRUMENTATION REPRESENTS AN INVESTMENT OF $10,000,000. THIS ANAEROBIC FILTER SYSTEM CONSTITUTES BOTH THE FIRST OF ITS KIND AND THE LARGEST COMMERCIALLY OPERATING ANAEROBIC FILTER IN THE WORLD.

ONE CAN SEE THAT THE GENERATION OF $750,000 WORTH OF FUEL SAVINGS PER YEAR IS, FOR THIS FIRST LARGE UNIT, A POOR RETURN ON A $10,000,000 INVESTMENT FOR ANY SINGLE COMPANY NOTWITHSTANDING ITS REDUCTION OF THE AMOUNT OF FOREIGN OIL IMPORTED INTO PUERTO RICO AND/OR THE UNITED STATES. (THE COMPANY NOTES THAT THIS INVESTMENT FIGURE DOES NOT INCLUDE SOME $200,000 OF YEARLY OPERATING COSTS.)

THE BACARDI CORPORATION INVESTED IN THIS DIGESTER WITHOUT AN EITC. THE COMPANY SUBMITS, HOWEVER, THAT THE AVAILABILITY OF THE 10 PERCENT BIOMASS EITC WOULD SWELL INDUSTRY SALES BY REDUCING TOTAL PROJECT COSTS TO INVESTORS. THE RESULTANT SALES WOULD PRODUCE A SIGNIFICANT INCREASE IN RENEWABLE BIOGAS FUEL FOR THE CRITICAL ENERGY NEEDS OF THE AGRICULTURAL SECTOR OF THE UNITED STATES.

CONGRESS SHOULD ENCOURAGE CONVERSION OF WASTE EFFLUENTS TO USEFUL ENERGY AND EITCS ARE A KEY ELEMENT TO THIS END. DECREASING OUR NATION'S DEPENDENCE ON FOREIGN OIL AND/OR INCREASING OUR DOMESTIC ENERGY RESERVES WOULD BE THE DIRECT

CONSEQUENCE OF GREATER UTILIZATION OF ANAEROBIC BIOGAS GENERATORS IN THE UNITED STATES.

IN THE MUNICIPAL MARKET, ANAEROBIC DIGESTION SYSTEMS ALREADY ARE LONG ESTABLISHED IN THE TREATMENT OF HUMAN WASTE. THESE SYSTEMS CONVERT SEPTIC TANK WASTES INTO A COMMERCIALLY SALEABLE FERTILIZER PRODUCT. A SMALL NUMBER OF COMPANIES CONTROL THE COMMERCIAL MARKETING OF ANAEROBIC DIGESTERS FOR MUNICIPALITIES.

THIS INDUSTRY'S GROWTH IN THE AGRICULTURAL MARKET WILL BE AFFECTED SIGNIFICANTLY BY ITS ABILITY TO DEVELOP SYSTEMS THAT ARE ECONOMICALLY VIABLE FOR SMALLER SIZE PROCESSING AND FARM OPERATIONS. IN ADDITION TO TECHNOLOGICAL IMPROVEMENTS, THE ABILITY TO USE A 10 PERCENT BIOMASS EITC IN THE FIRST YEAR OF A DIGESTER'S OPERATION COULD DETERMINE THIS EQUIPMENTS' FEASIBILITY FOR SMALL SCALE OPERATIONS. THE PURCHASERS (I.E., MUNICIPALITIES) OF ANAEROBIC DIGESTION SYSTEMS FOR MUNICIPAL WASTE TREATMENT PLANTS GENERALLY ARE TAX EXEMPT. THE IMPACT OF AN EITC FOR THOSE PURCHASERS, THUS, IS SUBSTANTIALLY LESS CRITICAL THAN FOR INVESTORS IN THE AGRICULTURAL MARKET.

2. ECONOMIC, ENVIRONMENTAL AND POLITICAL/NATIONAL SECURITY SIGNIFICANCE

THE DEVELOPMENT OF THE ANAEROBIC DIGESTION INDUSTRY CAN PROVIDE SIGNIFICANT BENEFITS TO THE UNITED STATES.

ECONOMICALLY, THE GROWTH OF THE INDUSTRY SIGNALS BENEFITS BOTH THROUGH THE REVENUES GENERATED FROM DIGESTER SALES AND THROUGH THE POTENTIAL ECONOMIC SALVATION IT MAY

PROVIDE FOR THE HARD HIT AGRICULTURAL SECTOR OF THE ECONOMY. ANAEROBIC DIGESTION MAY PROVIDE AN ADDITIONAL CASH CROP THAT COULD PERMIT SURVIVAL FOR MANY MARGINAL FARM OPERATIONS. ADDITIONALLY, THE CREATION OF NEW EMPLOYMENT OPPORTUNITIES FOR OUR NATION'S HARD PRESSED UNEMPLOYED CITIZENS THROUGH A VIBRANT ANAEROBIC DIGESTION INDUSTRY WOULD DECREASE ECONOMIC SUFFERING AND ENHANCE THE FISCAL VITALITY OF THE UNITED STATES.

ENVIRONMENTALLY, ANAEROBIC DIGESTION PROVIDES BENEFITS THROUGH THE PROPER TREATMENT AND DISPOSAL OF AGRICULTURAL AND MUNICIPAL WASTES. THIS TREATMENT IS ESPECIALLY IMPORTANT FOR OPERATIONS CLOSE TO POPULATION CENTERS OR WATER FACILITIES. IT ELIMINATES NOXIOUS ODORS AND REDUCES THE DANGER OF WATER POLLUTION. RELIANCE ON RENEWABLE ENERGY TECHNOLOGIES, SUCH AS ANAEROBIC DIGESTION, AVOID ACID RAIN, HAZARDOUS WASTE DISPOSAL, GLOBAL WARMING FROM CARBON DIOXIDE ATMOSPHERIC BUILD-UP, AND OTHER NEGATIVE ENVIRONMENTAL EFFECTS ASSOCIATED WITH FOSSIL FUEL COMBUSTION.

POLITICALLY, THE ANAEROBIC DIGESTION INDUSTRY CREATES RENEWABLE ENERGY WHICH CAN LESSEN OUR NATION'S DEPENDENCY ON PETROLEUM IMPORTS. RECENT REPORTS INDICATE THAT OUR DEPENDENCE ON SUCH IMPORTED ENERGY PRODUCTS CONTINUES TO INCREASE AND THE SIZE OF OUR SUPPLIES OF ALASKAN PETROLEUM VOLUMES IS VASTLY OVERESTIMATED. FURTHERMORE, THE DEGREE TO WHICH OUR AGRICULTURAL SECTOR BECOMES ENERGY SELF-SUFFICIENT MAY WELL GUARANTEE OUR FOOD SUPPLY DURING TIMES OF NATIONAL EMERGENCY, IF EXTERNAL ENERGY SOURCES ARE INTERRUPTED OR CUT-OFF.

Economic, environmental, and political/national security interests, thus, mandate the need for growth in this industry. The availability of EITCs, alone, can only assure this requisite growth.

B. S.1220

Congress traditionally has committed itself to the development of renewable alternate energy sources through incentive-based legislation to insure a strong and continued independent base of energy for the United States. The anaerobic digestion industry, in its recycling of nonfossil organic wastes into renewable alternate energy, clearly falls within the intended scope of this commitment. Nevertheless, through inadvertence and despite its clear intent to the contrary, Congress expressly has not encouraged investment into this industry through EITC legislation. These credits are essential to the vitality of this nacent industry.

S.1220, introduced by Senator Mark Hatfield and 10 co-sponsors on May 24, 1985, expressly would include anaerobic digestion equipment with in its purview. (Congressman Heftel introduced the identical measure, H.R. 2001, on April 4, 1985.[3]) Its "methane-containing gas" language, embodied in Section 101(d), would promote the development of the anaerobic digestion industry by expressly making digester equipment eligible for the biomass EITC on a three year phasedown basis.

SECTION 101(D) OF S.1220 WOULD AMEND SECTION 48(L)-(15)(C) (I.E., "BIOMASS PROPERTY PROVISION") OF THE INTERNAL REVENUE CODE OF 1954 ("CODE"), AS AMENDED, TO INCLUDE "METHANE-CONTAINING GAS" AS A "QUALIFIED FUEL" FOR PURPOSES OF SECTION 48(L)(3)(A)(III). 26 U.S.C. §48(L)(3) AND (15). "QUALIFIED FUEL", THUS, WOULD INCLUDE "METHANE-CONTAINING GAS FOR FUEL OR ELECTRICITY, PRODUCED BY ANAEROBIC DIGESTION FROM NONFOSSIL WASTE MATERIALS AT FARMS OR OTHER AGRICULTURAL FACILITIES, AND AT FACILITIES FOR THE PROCESSING OF AGRICULTURAL PRODUCTS." EQUIPMENT (I.E., ANAEROBIC DIGESTFR SYSTEMS) FOR CONVERTING AN ALTERNATE SUBSTANCE (I.E., NONFOSSIL WASTE MATERIALS) INTO "METHANE-CONTAINING GAS" (I.E., BIOGAS), AS SUCH, WOULD QUALIFY FOR THE 10 PERCENT EITC AS ELIGIBLE BIOMASS ENERGY PROPERTY.

SECTION 101(A) OF S.1220 WOULD AMEND 26 U.S.C. §46(B)(2)(A)(VI) TO EXTEND THE 10 PERCENT EITC FOR QUALIFIED BIOMASS PROPERTY FROM DECEMBER 31, 1985 THROUGH DECEMBER 31, 1988 ON THE FOREGOING INCENTIVE PHASEDOWN BASIS. THIS PHASEDOWN EXTENSION OF THE CREDITS WOULD PROVIDE HIGH UP-FRONT, CAPITAL INTENSIVE RENEWABLE ENERGY INDUSTRIES, SUCH AS THAT OF ANAEROBIC DIGESTION, THE NECESSARY TIME TO ESTABLISH THEMSELVES TO COMPETE WITH CONVENTIONAL FUELS. THIS PHASEDOWN EXTENSION ALSO DEMONSTRATES THE TRANSITION TOWARDS COMMERCIAL MATURITY, WHICH THE RENEWABLE ENERGY TECHNOLOGIES RAPIDLY ARE APPROACHING.

EITCS PROVIDE TEMPORARY ASSISTANCE FOR CLEAN, NEW, DOMESTIC ENERGY SYSTEMS TO ELIMINATE THE INSTITUTIONAL

BARRIERS THAT RENEWABLE ENERGY INDUSTRIES FACE IN COMMERCIAL DEVELOPMENT. THESE CREDITS PERMIT THESE INDUSTRIES TO GAIN ACCESS TO CAPITAL BEFORE COMPANIES' PERFORMANCE RECORDS ARE AVAILABLE FOR FINANCIERS' SCRUTINY. THESE INCENTIVES OFFER FAVORABLE TAX TREATMENT GIVEN CONVENTIONAL ENERGY SOURCES TO ESTABLISH AN EVEN COMPETITIVE PLAYING FIELD. THE ADMINISTRATION'S TAX PROPOSAL, WHICH WOULD CONTINUE INTANGIBLE DRILLING COSTS AND PERCENTAGES DEPLETION ALLOWANCES FOR THE OIL AND GAS INDUSTRY BUT ELIMINATE VITAL TAX INCENTIVES FOR THE RENEWABLE ENERGY INDUSTRIES, WOULD DESTROY THIS COMPETITIVE FAIRNESS.

EITCS ALSO PROVIDE A CRITICAL COMPONENT OF FEDERAL SUPPORT FOR DEMONSTRATING NEW ENERGY TECHNOLOGIES, PARTICULARLY BECAUSE OF THE SHARP DECLINE IN DIRECT GOVERNMENT SPENDING ON RENEWABLE ENERGY DEVELOPMENT. THEY REPRESENT THE CENTRAL MECHANISM OF OUR NATIONAL ENERGY POLICY TO DIVERSIFY ENERGY RESOURCES. BIOMASS ENERGY, ALONE, INCLUDING ANAEROBIC DIGESTION, ALCOHOL FUELS AND WOOD GASIFICATION, COULD SUPPLY A FIFTH OF THE UNITED STATES ENERGY NEEDS BY 2000.

BECAUSE OF THE EXPRESS INCLUSION AND PHASEDOWN EXTENTION OF THESE CRITICAL BIOMASS EITC PROVISIONS FOR ANAEROBIC DIGESTION EQUIPMENT, BACARDI CORPORATION ENTHUSIASTICALLY SUPPORTS S.1220. WE FIRMLY BELIEVE THAT S.1220 PROMOTES THE LONG-STANDING, CONGRESSIONALLY-CONTEMPLATED PUBLIC POLICY GOALS OF ENCOURAGING THE BROADEST POSSIBLE PROMOTION OF ALTERNATE ENERGY SOURCES. AS SUCH, WE recommend that Congress expeditiously pass this critical tax incentive measure.

C. Energy Investment Tax Credits On Biomass Property

Under the Energy Tax Act of 1978, Pub. L. No. 95-618, Congress established through December 31, 1982 a 10 percent EITC for boilers, burners, and related pollution control and fuel handling equipment which primarily utilize fuels other than oil or natural gas (i.e., "alternate substance").[4] Equipment employed to convert these alternate substances into a "synthetic liquid, gaseous, or solid fuel" also was made eligible for the credit.[5] Although not expressly mentioned, Congress clearly intended property using biomass fuels to qualify for the credit as "energy property" within the definition of "alternate energy property."[6]

Under the Windfall Profits Tax Act of 1980, Pub. L. No. 96-223, Congress continued this 10 percent EITC for this specific property and extended the credit's qualification period through December 31, 1985.[7] It also expressly designated a 10 percent EITC for biomass alternate energy property.[8]

Congress, in the Conference Report to the Windfall Profits Tax Act, explicitly outlined the scope it intended for the term "biomass."[9] Congress there provided that

> BIOMASS IS GENERALLY ANY ORGANIC SUBSTANCE OTHER THAN OIL, NATURAL GAS OR COAL, OR PRODUCT OF OIL OR NATURAL GAS OR COAL. FOR THIS PURPOSE, BIOMASS INCLUDES WASTE, SEWAGE, SLUDGE, GRAIN,

> WOOD, OCEANIC AND TERRESTRIAL CROPS AND CROP RESIDUES AND INCLUDE WASTE PRODUCTS WHICH HAVE A MARKET VALUE. THE CONFEREES ALSO INTEND THAT THE DEFINITION OF BIOMASS DOES NOT EXCLUDE WASTE MATERIALS, SUCH AS MUNICIPAL AND INDUSTRIAL WASTE, WHICH INCLUDE SUCH PROCESSED PRODUCTS OF OIL, NATURAL GAS OR COAL SUCH AS USED PLASTIC CONTAINERS AND ASPHALT SHINGLES.[10]

ANAEROBIC DIGESTION EQUIPMENT CLEARLY FALLS WITHIN THE CONGRESSIONALLY-INTENDED SCOPE OF QUALIFIED BIOMASS PROPERTY.

DESPITE THE INTENT OF CONGRESS SO PLAINLY EXPRESSED IN THE CONFERENCE REPORT, THE STATUTORY LANGUAGE USES THE TERM "QUALIFIED FUEL" INSTEAD OF THE PHRASE "SYNTHETIC LIQUID, GASEOUS, OR SOLID FUEL" TO DEFINE ELIGIBLE BIOMASS ALTERNATE ENERGY CONVERSION EQUIPMENT.[11] IT ALSO INADVERTENTLY DEFINES "QUALIFIED FUEL" IN A MANNER INCONSISTENT WITH ITS CLEARLY EXPRESSED CONGRESSIONAL INTENT. SPECIFICALLY, CONGRESS DEFINED "QUALIFIED FUEL" AT SECTION 48(L)(15)(C) OF THE CODE AS

> (I) ANY SYNTHETIC SOLID FUEL, AND
>
> (II) ALCOHOL FOR FUEL PURPOSES IF THE PRIMARY SOURCE OF ENERGY FOR THE FACILITY PRODUCING THE ALCOHOL IS NOT OIL OR NATURAL GAS OR A PRODUCT OF OIL OR NATURAL GAS.[12]

THIS RESTRICTIVE DEFINITION DOES NOT EXPRESSLY INCLUDE METHANE-CONTAINING GAS FOR FUEL OR ELECTRICITY, PRODUCED BY ANAEROBIC DIGESTION FROM NONFOSSIL WASTE MATERIALS. FOR THAT REASON, DESPITE THE CONGRESS' ULTIMATE AIM AS EXPRESSED SO CLEARLY IN THE CONFERENCE REPORT, ANAEROBIC DIGESTION EQUIPMENT CONVERTING AN ALTERNATE SUBSTANCE (I.E., NONFOSSIL ORGANIC WASTES) INTO BIOMASS-DERIVED METHANE-CONTAINING GAS

HAS BEEN INTERPRETED AS NOT QUALIFYING FOR THE EITC. FORTUNATELY, S.1220 DOES REMOVE THE CONFUSION THAT CURRENTLY SURROUNDS THE ELIGIBILITY OF ANAEROBIC DIGESTION PROPERTY FOR EITC PURPOSES.

IN 1982, CONGRESSMAN BEREUTER AND SENATOR MATSUNAGA INTRODUCED H.R. 6131 (ON APRIL 21)[13] AND S. 2766 (ON JULY 21),[14] RESPECTIVELY, CONFIRMING WHAT HAS BEEN CONGRESS' INTENTION ALL ALONG -- NAMELY, THAT ANAEROBIC DIGESTION EQUIPMENT BE ELIGIBLE FOR APPROPRIATE TAX CREDITS. THOSE IDENTICALLY-DRAFTED BILLS WOULD HAVE INCLUDED THIS METHAN-CONTAINING GAS AS A QUALIFIED FUEL. THEY SIMILARLY WOULD HAVE PERMITTED ANAEROBIC DIGESTION EQUIPMENT, PLACED IN SERVICE AFTER DECEMBER 31, 1982, TO OBTAIN THE 10 PERCENT EITC.

ON MARCH 3, 1983, CONGRESSMAN BEREUTER AND HEFTEL REINTRODUCED CONGRESSMAN BEREUTER'S 1982 MEASURE AS H.R. 1876.[15] ON MAY 17 AND 19, 1983, SENATOR PACKWOOD AND CONGRESSMAN HEFTEL INTRODUCED S. 1305[16] AND H.R. 3072,[17] RESPECTIVELY. ON OCTOBER 3 AND 4, 1983, SENATOR WALLOP AND CONGRESSMAN HEFTEL INTRODUCED S. 1939[18] AND H.R. 4078,[19] RESPECTIVELY. S. 1305, S. 1939, H.R. 3072 AND H.R. 4078 INCLUDED THE ANAEROBIC DIGESTER LANGUAGE OF H.R. 1876 IN SLIGHTLY DIFFERENT WAYS. THE "METHANE-CONTAINING GAS" LANGUAGE OF SECTION 201 OF H.R. 3072 IS IDENTICAL TO THAT CONTAINED IN SECTION 7 OF S. 1305, AND SECTION 6 OF S. 1939 AND H.R. 4078 BUT FOR ONE EXCEPTION. H.R. 3072'S LANGUAGE DID NOT LIMIT THE FEEDSTOCK FOR PRODUCING "METHANE-CONTAINING

GAS" TO NONFOSSIL WASTE MATERIALS "AT FARMS OR OTHER AGRICULTURAL FACILITIES, AND AT FACILITIES FOR THE FIRST RESTRICTIVE PROCESSING OF AGRICULTURAL PRODUCTS." (S.1220 SUBSTANTIALLY ADOPTS THE "METHANE-CONTAINING GAS" PROVISIONS OF S. 1305, S. 1939 AND H.R. 4078.)

REGRETTABLY, BECAUSE OF THE PRESS OF OTHER EVENTS, CONGRESS TOOK NO ACTION ON THOSE PROPOSED MEASURES IN 1982-1984.

III. CONCLUSION

THIS COMMITTEE TODAY HAS THE SPECIAL OPPORTUNITY TO ENTHUSIASTICALLY CONFIRM THE CLEAR AND LONG-STANDING CONGRESSIONAL INTENT TO QUALIFY ANAEROBIC DIGESTION EQUIPMENT FOR THE 10 PERCENT EITC AND, THUS, PROMOTE THE PRODUCTION AND DEVELOPMENT OF CRITICAL ALTERNATE ENERGY SOURCES. IT CAN SUPPORT S.1220 TO ACCOMPLISH THIS IMPORTANT RESULT.

A TAXPAYER ENGAGED IN AGRICULTURE USUALLY MUST SECURE THIRD-PARTY FINANCING IN ORDER TO INSTALL AN ANAEROBIC DIGESTER SYSTEM. THE APPLICATION OF THE EITC TO THIS SYSTEM MAKES THIRD-PARTY FINANCING POSSIBLE. WITHOUT THIS ENERGY CREDIT, THIS ALTERNATE ENERGY SOURCE WILL NOT BE UTILIZED TO ANY GREAT EXTENT.

THE SHORT TERM EFFECT ON GOVERNMENT REVENUES THROUGH THE USE OF THESE CREDITS BY THE ANAEROBIC DIGESTION INDUSTRY WILL BE MINIMAL. THE AVAILABILITY OF THESE ENERGY CREDITS FOR ANAEROBIC DIGESTER SYSTEMS WILL ENCOURAGE STRONG INVESTMENT INTO THE INDUSTRY. THUS, INVESTMENT-GENERATED INDUSTRY

SALES WILL PROVIDE INCREASINGLY SIZABLE LONG-TERM TAXABLE INCOME FOR THE GOVERNMENT'S COFFERS.

THE ECONOMIC, ENVIRONMENTAL AND POLITICAL/NATIONAL SECURITY SIGNIFICANCE OF THE ANAEROBIC DIGESTION INDUSTRY TO THE CITIZENS OF THE UNITED STATES ARGUES IN FAVOR OF THE ENACTMENT OF S.1220. SIMILARLY, THE IDENTICAL CONGRESSIONAL OVERSIGHT THAT EXCLUDED ANAEROBIC DIGESTION FROM THE ENERGY INVESTMENT TAX CREDIT ALSO EXCLUDED ANOTHER IMPORTANT ALTERNATE ENERGY TECHNOLOGY, I.E., WOOD GASIFICATION, FROM THAT CREDIT. AS SUCH, A TECHNICAL CORRECTION TO THE TAX CODE TO ELIMINATE THE ADVERSE EFFECTS OF THIS OVERSIGHT IS CRITICALLY NECESSARY.

FOOTNOTES

1. S.1220, 99th Cong., 1st Sess. (1985).

2. We computed this projected insignificant $2.1 million revenue loss figure on $27 million total sales during this period as follows: (1986-10 percent credit X $5 million in sales) + (1987 - 10 percent x $10 million in sales) + (1988 - 5 percent x $12 million in sales), or $500,000 + $1,000,000 + $600,000 = $2.1 million.

3. H.R. 2001, 99th Cong., 1st Sess. (1985).

4. Section 301 of Pub. L. No. 95-618 amending 26 U.S.C. §§46, 48; H.R. Conf. Rep. No. 817, 96th Cong., 2d Sess. 131-132 (1980) (Crude Oil Windfall Profits Tax Act of 1980).

5. Section 301 of Pub. L. No. 95-618 amending 26 U.S.C. § 48; H.R. Conf. Rep. No. 817, *supra*.

6. *Id*.

7. Section 221 of Pub. L. No. 96-223 amending 26 U.S.C. § 46(a)(2)(C)(1); H.R. Conf. Rep. No. 817, *supra* at 132.

8. Id.

9. H.R. Conf. Rep. No. 817, supra at 132.

10 Id.

11. 26 U.S.C. § 48(l)(15)(B)(ii).

12. Id. at § 48(l)(15)(C).

13. H.R. 6131, 97th Cong., 2d Sess. (1982).

14. S. 2766, 97th Cong., 2d Sess. (1982).

15. H.R. 1876, 98th Cong., 1st Sess. (1983).

16. S. 1305, 98th Cong., 1st Sess. (1983).

17. H.R. 3072, 98th Cong., 1st Sess. (1983).

18. S. 1939, 98th Cong., 1st Sess. (1983).

19. H.R. 4078, 98th Cong., 1st Sess. (1983).

STATEMENT OF
INDEPENDENT PETROLEUM ASSOCIATION OF MOUNTAIN STATES

BY

A. A. PHILLIPS AND W. W. WILLIAMS III

BEFORE THE

FINANCE COMMITTEE OF THE SENATE

JULY 17, 1985

On behalf of the Independent Petroleum Association of Mountain States ("IPAMS") we wish to comment on potential legislative changes affecting oil and gas independent producers. We support the efforts of the President to simplify the current tax code and to make it more fair. However, we believe that changes to achieve simplicity are not desirable if such changes irrevocably damage the financial position of an industry. Further, we believe that the current taxation of independent oil and gas producers is not unfairly preferential, but merely recognizes the unique nature of independent oil and gas producers.

IPAMS

IPAMS represents over 1,650 independent oil and gas producers in eleven states in the Rocky Mountain region. This area poses difficult terrain and weather problems. It is truly a frontier area for the development of oil and gas. Substantial potential reserves in the overthrust belt and other areas of the Rockies provide the opportunity for the United States to fully develop the potential of its oil and gas reserves.

Independent producers nationally account for 90 percent of all exploratory ("wildcat") drilling in the United States and 85 percent of all drilling which resulted in the discovery of substantial new reserves. IPAMS members have drilled a significant number of these wells.

IPAMS members like other independent producers derive their income almost exclusively from the sale of oil and gas production. Furthermore, IPAMS members have traditionally relied on outside investment to help reduce the risk of drilling and to provide the needed capital to drill. Changes in tax laws which are being considered would reduce both internally generated funds and investments from outside capital sources thereby curtailing drilling activity. This, we believe, would be detrimental both to the United States and to independent producers in the Rocky Mountain area.

NATIONAL SECURITY AND BALANCE OF PAYMENTS

IPAMS members believe that the full development of our domestic oil and gas reserve base is essential to the security of the United States. Increasing our dependence on Persian Gulf countries which have historically been unstable and subject to revolution and blackmail through terrorism seems unwise. The United States must encourage development of its reserves rather than discourage such development with adverse tax policy.

The United States is currently importing over one-third of its oil requirements at a heavy cost to the economy This accounts for a major portion of its balance of payments deficit. A substantial reduction in domestic exploration for oil and gas with a related reduction in domestic oil production will certainly worsen this situation

Some analysts appear to believe that the current glut of oil and gas will continue indefinitely Such a view seems to us to be extremely naive and short sighted Since oil and gas is a depleting commodity world wide, a substantial reduction in drilling because of declining prices and the related drilling economics inevitably would lead to future shortages.

When a shortage develops, the discovery of and subsequent production from of new fields takes a number of years. Accordingly, a crisis, such as the one faced by the United States in the 1970's could easily develop again. Furthermore, the pricing and availability of oil and gas is also subject to governmental intervention. The current weakness of OPEC in the face of declining demand could quickly reverse if one or more of the OPEC member countries has a dislocation of production because of revolution, war, or terrorist blackmail.

OIL AND GAS A PRIMARY ENERGY SOURCE

Oil and gas remains the primary energy source for the United States and will be for the foreseeable future. Alternative sources of energy, although very important, require very long lead times before they can provide a significant portion of the nation's energy needs. Nuclear power has been reduced in significance in recent years.

UNIQUE NATURE OF THE OIL AND GAS INDUSTRY

The oil and gas industry is unique in that its assets are not seen or known to exist until proven by actual drilling. Intangible drilling and development costs ("IDC") are the costs of drilling a well which by their nature do not have a salvage value. The nature of the expenditure is the only thing that is "intangible" about these costs. IDC require substantial up front outlays of hard dollars and the assumption of substantial risk. These costs are very similar to research and development costs because oil and gas reserves cannot be known to exist unless a well is actually drilled.

IDC has been allowed immediate deductibility by legislative grace in prior years because such deductibility is a significant incentive to drill for new reserves. This incentive is as important now as it ever has been and accordingly should be retained

An oil and gas property is a wasting asset. Unlike a building which can be rented or used during its life and may have a life extending for many years, oil or gas, once produced, cannot be replaced. Accordingly, an oil or gas property is effectively being sold from the day that production begins. Percentage depletion reflects, in part, this fact.

Percentage depletion rates for oil and gas production have decreased from 27.5% in 1969 for all production to the current 15% for the first 1000 barrels of equivalent production by independent producers. The reduction in rates has already had an adverse impact on producers. To further reduce or eliminate percentage depletion would have an adverse impact on independent producers and the government, since many producing wells will be abandoned or shut in due to uneconomical after-tax cash flow results. Percentage depletion is already severely restricted and is effectively available in the future only to independents who discover new production, or have held certain eligible production since its discovery.

Percentage depletion reflects that fact that an oil or gas property is being sold from the date of first production. An effect of percentage depletion is to give installment sale treatment to the sale of oil or gas. We believe that this correctly reflects the economics of oil and gas exploration and production.

As previously stated, independent oil and gas producers are unique because the outcome of drilling operations is not easily predictable even with recent advances in technology. Even development drilling is not assured. The degree of risk increases substantially when dealing with wildcat drilling. The drilling of wildcat acreage and high risk development wells would be severely impaired in the Rocky Mountain area if the current method of taxing the industry is substantially worsened by the elimination or restriction of percentage depletion or the IDC deduction. It is crucial that drilling of wildcat wells and high risk development wells be continued if the reserves in the Rocky Mountain area are to be fully developed.

ROCKY MOUNTAIN ECONOMY

Nowhere in the country has the current downturn in the oil and gas industry been felt more severely than in the Rocky Mountain area. Rig counts have declined continuously since 1982 until only recently. Many independent oil and gas operators have been forced to go out of business and the dislocations continue. The remaining producers are the most efficient but even they are experiencing very difficult times. These remaining producers must provide the nucleus for continued exploration and development in the Rockies. Adverse tax legislation could destroy these producers and would severely hamper the national search for domestic production.

SUMMARY

In summary, IPAMS members support tax reform and simplification but do not believe that the independent oil and gas producer should be destroyed in the process. The current taxation of the independent producer reflects the unique nature of the oil and gas industry. Furthermore, such taxation reflects the high risk involved in drilling as well as the wasting asset nature of an oil or gas property.

Because of the so called "gas bubble" and the uncertainty over oil prices, independent producers in the Rocky Mountain area are experiencing a severe recession, if not depression. Adverse legislation could destroy many, if not most, of the remaining producers.

IPAMS members believe that the United States must make every effort to fully develop its reserves recognizing the long lead time required to develop new fields. This is necessary to minimize our dependence on foreign oil and the vulnerability that such reliance creates in the national defense area as well as to minimize the current balance of payments deficit.

The Rocky Mountain area remains as one of the frontier areas of oil and gas exploration. We believe that it is crucial to the United States that tax changes not cripple exploration in this area.

We thank you for your consideration in this matter and will respond to any questions in writing.

Respectfully yours,

A A Phillips

A. A. Phillips, President

W.W. Williams, III

W. W. Williams III, Tax Committee Chairman

WRITTEN STATEMENT
ON
COMPREHENSIVE TAX REFORM
(Oil and Gas Tax Treatment)

INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS

At Hearings Before the
Committee on Finance
United States Senate

Washington, D.C.
July 17, 1985

The International Association of Drilling Contractors is a trade association composed of over 1500 member companies involved in all aspects of oil and gas exploration, development and production. The Association would like to set forth arguments for percentage depletion and expensing of intangible drilling costs (IDC).

THE ECONOMICS OF PERCENTAGE DEPLETION

History of Percentage Depletion

The concept of percentage depletion was first recognized in the Revenue Act of 1913, and was based on the total cost of the property or the fair market value whichever was greater, as of March 1, 1913. In the Revenue Act of 1918, discovery value depletion was adopted to permit taxpayers to recover the greater of cost or discovery value. Discovery value depletion was developed:

1. from political awareness of the need for more oil production;
2. a recognition that the mere recovery of historical cost did not permit natural resource producers to generate sufficient "capital" to replace depleting reserves due to the high ratio of total failure, i.e., dry holes, and;
3. that each succeeding reserve is more difficult -- and therefore more costly -- to locate.

Thus, over 60 years ago, Congress determined that the concept of capital in the oil and gas industry was unique and that differential, but not preferential, capital recovery provisions were necessary to insure adequate domestic oil and gas production and put the industry on an equal basis, economically, with other industries.

In the Revenue Act of 1926, to eliminate administrative problems in valuing oil and gas properties by the discovery method, Congress adopted the concept of percentage depletion at a rate of 27.5% of gross income. The 27.5% rate was derived, through legislative compromise, as an approximation of the value of the oil and gas in the ground at the date of discovery. The 27 1/2 rate made considerable economic sense. Unfortunately, because percentage depletion became such a "political football," the rate was subsequently reduced to 22% (Tax Reform Act of 1969), then repealed for most petroleum production (but not for other minerals) and further reduced to 15% (Tax Reduction Act of 1975), for that production remaining eligible for depletion without any real consideration of the economic consequences of such an action.

Under the discovery value concept of depletion, at today's prices ($26 per barrel) and approximate value of oil in the ground ($8 - $12 per barrel), the percentage depletion rate should be between 31% - 46%. The discovery value concept of depletion was economically designed to place the oil explorer, or "discoverer," on an equal economic basis with the taxpayer who, without much risk, might purchase the reserves in place and recover his investment through cost depletion. Thus, percentage depletion implicitly realized the capital value derived through the discoverer's exploration and development effort.

Economic Arguments in Favor of Percentage Depletion

1. Oil and Gas Operators Must Discover Their Capital Assets

Oil and gas explorers must discover their capital assets. In other words, they must invest funds (usually 100% equity) which are totally at "risk" and drill a well to find an asset (oil and gas reserves) that may or may not exist. Even though technological developments, primarily sophisticated geophysical and seismographic equipment, have greatly aided the continuing search for hydrocarbons, drilling, and only drilling, can determine whether commercial reserves exist. After a completion attempt has been successful, there is no way to conclusively determine the extent of the oil or gas reserves; petroleum engineering is far from being an exact science. Accordingly, even after a successful well has been drilled, it cannot be predicted whether or not production will permit full recovery of investment and operating costs, let alone an acceptable rate of return. Due to inherent drilling risk, it is uncertain whether the operator's reserve base may be maintained through additional drilling activity in the future.

The situation of an oil and gas operator should be contrasted to a taxpayer constructing an apartment building which usually requires an investment of no more than 20% equity. The apartment owner knows an asset will exist after construction; his capital doesn't have to be discovered. Admittedly, the owner is not "guaranteed" that rental income and any residual value will provide an acceptable rate of return. In the overwhelming majority of cases, however, at least some economic return can be realized from the investment, even if the project is a flop.

2. Oil and Gas Properties Have No Residual Value

Oil and gas is truly a wasting asset. After it is produced, it cannot be physically replaced. Once the oil and gas has been extracted, the property has no residual value. This economic fact should be contrasted to, for example, an investment in depreciable real estate where typically the investment would, at the very least, maintain its value. To illustrate the comparative after-tax economic residual value of a comparable investment, consider the following illustration:

Taxpayer A, for an equity investment of $20,000, acquires an office building costing $100,000 and holds it as rental property for 18 years. The building appreciates at a conservative rate of two percent per year. Taxpayer B acquires mineral rights in an oil field, investing the full $100,000. A successful well is drilled and produces for 18 years, generating gross income (before operating expenses) of $1,000,000. It is assumed that the taxable income from the well is sufficient for B to utilize the 15% depletion deduction over the entire period. Each owner disposes of their respective property at the end of the 18 year period. Assume further that A and B are in a 50 percent tax bracket.

	Taxpayer A Real Property	Taxpayer B Mineral Property
Cost	$100,000	$100,000
Depreciation/Depletion	(100,000)	(150,000)
Remaining basis	-0-	-0-
Fair Market Value	$142,825	-0-

Taxpayer A has enjoyed a tax benefit from depreciation in the amount of $50,000 ($100,000 x 50%). In addition, the after-tax residual value of the property is $114,260 ($142,825 -($142,825 x 40% (after 60% exclusion) x 50%). Therefore, the total "non-operating" after-tax economic benefit of owning the property is $64,260 ($50,000 (tax benefit) + $114,260 (after-tax residual) - $100,000 (cost)).

Taxpayer B has enjoyed a tax benefit from depletion in the amount of $75,000 ($150,000 x 50%). Because, however, the investment was made in a wasting asset, the residual value is $0. Accordingly, B has a "non-operating" after-tax economic cost from owning the property of $25,000 ($100,000 (cost)-$75,000 (tax benefit)).

In order for the two properties' after-tax "non-operating" economic value to be equal, either the real property would have to decline in value to $31,250 or depletion from the mineral property would have to total $328,520. Historic cost accounting concepts, even with the indexing feature of the President's tax proposal, do not reflect economic reality when comparing a wasting asset to a durable asset.

3. Percentage Depletion Approximates the Installment Sale of Oil and Gas Reserves Through Production

Production of oil and gas may be visualized as the liquidation of an asset over a period of years. Each dollar of production income (in excess of operating expenses) is a complex mixture of capital gain and ordinary income. Economically, capital gain represents that portion of production income that was derived through, and is a direct result of, the entrepeneurial element of drilling. In this regard, we strongly disagree with the President's proposal to eliminate capital gain treatment for sales of depletable properties. There is as much entrepeneurial risk associated with drilling and developing an oil and gas property as there is with investing through the stock market in a start-up company. If either investment is liquidated, a capital gains rate should be applied to the gain, provided the requisite holding period has been met. It is simply unfair to discriminate as to capital gain treatment because of the "mode of ownership". Ordinary income is that portion of production income which represents the income stream that a purchaser of the reserves would require for an acceptable, risk-adjusted rate of return on investment and as compensation for managing operations. These are complex concepts; nevertheless, they reflect a reasonable visualization of the underlying economics of discovery of oil and gas reserves and subequent production. Under this theory, the percentage depletion rate (using a 17.5% capital gain rate and a 35% ordinary income rate as in the President's proposal) should, in a greatly simplified analysis, be roughly 15% - 23% in today's economic environment.

The computations on the following page illustrate the required rate of percentage depletion to equate: (a) the income tax (with percentage depletion applicable) on the selling price of a barrel of oil produced and sold at the wellhead to; (b) the combined capital gain tax and ordinary income tax if the value of the "entrepreneurial risk" increment of the selling price equals the value of the reserves if they were sold "in the ground":

ILLUSTRATION

Assumptions:

*	(a)	Selling price of oil at the wellhead	$26 per bbl.
	(b)	Value of oil reserves sold in the ground	$8 or $12 per bbl.*
	(c)	Income tax rate	35%
	(d)	Capital gain tax rate	17.5%

* Market prices for oil reserves sold in the ground have ranged from $8 - 12 per barrel in typical transactions in recent years.

	$8 Value		$12 Value
Selling Price	$26.00		$26.00
Capital gain increment	8.00		12.00
Ordinary income increment	18.00		14.00
	26.00		26.00
Tax on capital gain (.175 x 8)	1.40	(.175 x 12)	2.10
Tax on ordinary income (.35 x 18)	6.30	(.35 x 14)	4.90
Total tax	7.70		7.00

Computation of depletion rate:

$$\begin{aligned} .35(26 - x) &= 7.70 \\ 9.1 - 35x &= 7.70 \\ .35x &= 1.4 \\ x &= 4 \end{aligned} \qquad \begin{aligned} .35(26 - x) &= 7.0 \\ 9.1 - .35x &= 7.0 \\ .35x &= 2.1 \\ x &= 6 \end{aligned}$$

$$\frac{4}{26} = 15\% \qquad \frac{6}{26} = 23\%$$

Proof			
Selling price	$26.00		$26.00
Percentage depletion (15% x 26)	3.90	(23% x 26)	5.98
	22.10		20.02
Income tax rate	x .35		x .35
Tax (rounded)	7.70		7.00

4. Percentage Depletion Recognizes that Replacement Cost Get More Expensive Over Time

Depreciation is essentially a mechanism that permits a business enterprise to recover its capital assets over their economic lives. It is justified on the standpoint that only income, and not capital, is subject to taxation. Generally, absent adjustments for inflation, replacement cost of a business enterprises' capital assets roughly corresponds to historical cost. Actually, in many cases, economies of scale (decreasing replacement costs through greater volume) are likely to lower replacement costs for many firms that are expanding.

The concept of depletion of exhaustible resources, such as oil or gas, is an entirely different economic matter. Replacement costs (finding costs of replacing reserves) increase in the oil and gas industry simply because of the fact new reserves are increasingly difficult to find. If depletion deductions were limited to cost, oil and gas operators would, in essence, be forced to disinvest over time. The concept of depletion must encompass both the recovery of cost and additional capital to find new reserves. Again, percentage depletion, admittedly imperfect, at least attempts to put oil and gas operators on an even playing field with other business activity.

5, Funds Cannot Be Borrowed For Exploratory Drilling

Funds to drill exploratory wells cannot be borrowed. Once a reserve base is developed, an established oil and gas operator may use the reserves to secure borrowing for a part of development drilling from a bank or other lender. Such financing is nearly always on a recourse basis, secured by all the assets of the business. Because of these economic facts, funds to drill exploratory wells must be derived from internal cash flow, equity financing (stock market), or outside investors.

In many other businesses, for example, the utility and real estate industries, financing for new projects may be secured, in large part, by bank or outside financing. In many cases, the financing for such projects can be obtained on a nonrecourse basis, secured only by the assets of the project. Thus the ability to derive funds for new projects (exploratory drilling in the case of the oil and gas industry) is significantly different than, for example, the real estate and utility industries.

ANALYSIS OF TREASURY COMMENTS PERTINENT TO PERCENTAGE DEPLETION *

Page No.	Treasury Comment (Treasury II)	Response
p. 229	"Percentage depletion allows deductions to be claimed in excess of a taxpayer's investment, and thus is more accurately viewed as a general production subsidy than as a method of cost recovery."	For the reasons noted in the analysis of the economic merits of percentage depletion, the justification for the deduction primarily resides in the discovery element of the oil and gas industry. Percentage depletion is not a production subsidy; The authors of the Treasury proposal do not understand the economic underpinning of the deduction.
p. 229	"Percentage depletion encourages development of existing properties rather than exploration for new deposits."	Percentage depletion is intended tp both encourage development of known reserves and also provide the capital for discovering replacement reserves. Petroleum reserves benefit the national economy and security only when they are produced and available for consumption. New reserves can be discovered only as current production from known reserves provides cash flow for capital formation to finance new exploratory activity. Percentage depletion is an effective and efficient tool available to facilitate capital formation.

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* The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity, May, 1985.

	Treasury Comment (Treasury II)	Response
p. 229	"Because the allowance is limited to 50% of the properties' net income, the subsidy is a cutback for developers of marginally profitable properties. Thus, the greatest benefits are provided where a subsidy is least needed, i.e., to the developers of the most prolific or highly concentrated deposits."	The 50% of net income limitation was added by the Revenue Act of 1924 to avoid permitting utilization of depletion against non-oil and gas income and had nothing to do with marginal vs. non-marginal properties. In 1975, Congress also placed the 65% of taxable income limit upon depletion; oil and gas producers thus face a "double limitation" to an economically necessitated deduction. The percentage depletion deduction would obviously be greater (over the life of the property) for a more prolific discovery. This only makes sense since greater value was derived (and more economic risk taken) in connection with the drilling effort.
p. 230	"The rationale for retaining percentage depletion with respect to stripper well production does not extend to owners of royalty interests in stripper wells. The treatment of the stripper royalty owner has no direct bearing on the operator's decision to maintain production, and thus owners should be subject to the generally applicable cost recovery rule."	The true value of the royalty oowners' interest, like that of the working interest owner, was realized through the drilling effort. Rather than drill the well (as the owner of the fee interest), the fee owner leased to the working interest owner, retaining an interest (royalty interest), equal in value (prior to drilling) to the working interest (which is burdened with the cost of development). The fee owner merely converted his mineral interest into a different form. The royalty owner's interest in the mineral in place is enriched or diminished (by a dryhole) through the drilling effort just as the working interest owner's interest in the minerals in place is enriched or diminished. Both the royalty owner and working interest owner are economically entitled to percentage depletion.

	Treasury Comment (Treasury II)	Response
p. 134/ p. 135	"If depreciation allowance understate real economic depreciation of a particular asset, income from the investment is overtaxed and a tax disincentive is created which impairs capital formation and retards the economy's productive capacity... ACRS continues to base depreciation allowances on historic costs rather than current replacement costs." (emphasis added)	As demonstrated in the analysis of the economic merits of percentage depletion, cost depletion understates the real economic depletion of a wasting asset such as oil and gas reserves. Percentage depletion approximates real economic depletion and provides the recovery of economic capital that is utilized to fund the search for new oil and gas reserves.

THE ECONOMICS OF EXPENSING INTANGIBLE DRILLING COSTS

Historical Overview

The concept of expensing of Intangible Drilling Costs (IDC) was first recognized in 1916 through an administrative regulation promulgated by the IRS. After several court decisions questioning the validity of the 1916 regulation, the 79th Congress, in a concurrent resolution, expressly recognized the authority of the IRS to issue the 1916 regulation. The Internal Revenue Code of 1954 statutorily incorporated a provision which explicitly authorized the expensing of IDC.

In the Tax Reform Act of 1976, IDCs on productive wells were made an item of "tax preference" (i.e., possibly subject to minimum tax) for individual taxpayers. In the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), the law was changed such that integrated oil companies could only expense 85% of their IDC; the percentage was changed to 80% in the Tax Reform Act of 1984.

Justification for expensing of IDCs has, since 1916, been premised on the encouragement of risk taking.

What Are IDCs?

IDCs are those expenditures made by a taxpayer for wages, fuel, repairs, hauling, supplies, etc., incident to and necessary for the drilling of wells and the preparation of wells for the production of oil and gas, which, in and of themselves, have no salvage value. IDCs are funded with cold, hard cash. IDCs typically cannot be financed by a bank or other financial institution, but must be paid through an operator's internal cash flow or outside equity money supplied by investors. IDCs are, in a sense, analogous to ordinary and necessary operating costs in any other business, since a continuous quest for new reserves through additional drilling must occur to avoid gradual liquidation of the business enterprise. IDCs are the "lifeblood" of the oil and gas industry, where the key to economic survival in a risky, capital intensive business is cash flow. The following items represent typical expenditures that constitute IDC under Sec. 263(c):

* Drill site preparation and related survey costs.
* Fee to drilling contractor for labor, fuel, materials (i.e., drill bits, etc.) and use of drilling rig (under footage, daywork, or turnkey contract).
* Drilling mud and chemical additives.
* Cementing services (cementing of surface, intermediate and production casing).
* Core analysis and logging services (analysis of geological formations with scientific instruments to determine if completion attempt is warranted).
* Perforating services (puncturing of production casing with special "gun" to induce oil or gas to flow into the well bore).
* Fracturing services (pressurized injection of raw material to create fissure in geological formation to induce production).
* Crop damage payments to surface owner.

Some people in Treasury and the Congress feel that expensing of IDC is a special "preference" to the industry. In their view, since IDCs are part of the cost to construct an asset that has an economic life of more than one year (i.e., some oil or gas wells produce for several years), it is inappropriate to permit immediate expensing of IDC, as "costs" are not properly matched with "revenue."

Other industries currently deduct expenses similar to IDCs, i.e., hard dollar expenditures for items which once acquired have zero capital value. What many do not understand is that all tangible items on successful wells -- things retaining capital value like pipe down the hole, pumps and wellhead equipment, separators, compressors, tank batteries, gathering lines, etc. -- are capitalized for tax purposes and amortized over time just as tangibles of other industries are treated.

The following discussion demonstrates that expensing of IDC reflects the economics of the oil and gas industry. In this regard, expensing of IDC puts the oil and gas industry on an "even playing field" with other businesses. It should be recognized that "differential" tax treatment, which reflects the economics of the oil and gas industry, does not constitute "preferential" tax treatment.

Economic Arguments in Favor of Expensing of IDC.

1. IDC Expenditures are Made Before Capital Asset (Oil and Gas Reserves) is Known to Exist

One of the popular arguments against immediate expensing of IDC is the analogy of the treatment of costs, for example, to construct an apartment building. Labor costs, costs of all materials (whether or not they have independent salvage value), and costs, for example, to use equipment (i.e., cranes and special trucks) in connection with construction of the building must

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be capitalized and depreciated over a period of years. In their view, the drilling of an oil or gas well is nothing more than the construction of an underground apartment building.

This analogy is oversimplified and fails to recognize a crucial economic distinction between constructing an apartment building and drilling an oil or gas well. IDC expenditures are incurred prior to a determination that a capital asset (oil and gas reserves) in fact exists! When a building is constructed, there is virtual economic certainty that a capital asset, with economic value, will in fact exist upon completion. That this is a compelling economic distinction.

There is a further misconception by some in Treasury and in Congress that technological advances in geophysical and seismographic instrumentation have greatly reduced drilling risk such that oil and gas reserves can be virtually "pinpointed." While technological advances in geophysical and seismographic instrumentation have significantly aided the continuing search for hydrocarbons, only drilling can determine whether, in fact, commercial oil and gas reserves exist.

2. Return on Investment Subject to Geologic Unknowns

Another significant economic distinction between drilling an oil and gas well and, for example, the construction of an apartment building is found in the area of geologic risk. Even after a completion attempt has been successful, there is no way to conclusively determine the extent of the oil or gas reserves; petroleum engineering is far away from being an exact science. The oil and gas industry can document thousands of cases where a "significant discovery" at the time of completion eroded, only a few months later, into a well that would never return the operator's investment due to unforeseen geologic features of the formation or mechanical difficulties with the well which may never be correctible. If IDCs were required to be capitalized, many of these wells would be abandoned (to write off the remaining IDC and not "carry" the cost) even though the oil or gas recovered would mean that much less oil or gas would have to be imported. In essence, expensing of IDC in the oil and gas industry, in fact, fosters the concept of "economic neutrality" because completion and operating decisions are not influenced by the tax treatment of IDC. Decisions whether or not to complete an oil or gas well, for example, should be determined solely on the prospect of whether costs after the casing point may be recovered through future revenues, since costs to the casing point are "sunk costs."

There is no comparable "geologic risk" in connection with the construction of an apartment building. As a practical matter, structural deficiencies in a building, probably the closest economic resemblance to geologic risk in the oil and gas industry, are few and far between.

3. Resemblance to Research and Development Costs (R & D) in the High Tech Industries

From an economic standpoint, IDCs are perhaps closest to research and development costs (R & D). The economic similarity between IDC and R & D is essentially premised on the two special features of IDC noted below:

* R & D expenditures, like IDCs, are incurred before a capital asset (technology) is know to exist.

* Because of unknown risks (geologic in the case of IDC and technological in the case of R & D) there is no practical way to determine or project, even if a capital asset is discovered, an ultimate return on investment with any degree of certainty.

IDCs, like R & D expenditures, should be expensed currently. Expensing reflects the underlying economics of the economic endeavor.

SUMMARY

In summary, percentage depletion and expensing of IDC make economic sense in the oil and gas industry. They are not "preferences" or "giveaways" but simply reflect the reality of the business. The oil and gas industry wants an "even playing field" in the tax system -- they don't want a handout. The industry, however, needs tax provisions that reflect the realities of their economic activity.

TESTIMONY OF
THOMAS W. ALLEN
BEFORE THE

SENATE COMMITTEE ON FINANCE
UNITED STATES SENATE

HEARINGS ON THE ADMINISTRATIONS PROPOSAL TO REPEAL PERCENTAGE DEPLETION AND SUBSTITUTE COST DEPLETION FOR OIL AND GAS ROYALTY OWNERS

My name is Thomas W. Allen and I live in Houston, Texas. I am a certified Financial Planner and Investment Broker. I am a charter member of the National Association of Royalty Owners which was formed in 1980. I served for three years as Financial Vice President and am currently serving as its' chairman. We have 4,500 members in 50 states and also represent the interests of about 38,500 members of regional, county and state mineral owner groups in the nation.

Royalty owners have always been the poorest segment of the oil and gas industry. We own the mineral interest investments, however, once we sign a lease with a producer to develop the property to recover the oil and/or gas, we lose all control over our investment. Laws were written in most petroleum producing states over the years without our knowledge or input that stripped away many of our rights to help control the destiny of our investment. Oil company purchasing and producing operations are largely unchallenged and in most cases unknown by the royalty owner. From the beginning of the oil and gas industry in this country, royalty owners have historically come out the losers in their dealings with the oil companies and with government.

A recent study by a major oil company revealed that the average monthly check for their royalty owners was $272.00. Hardly up to the J.R. Ewing image of the popular television program, "Dallas".

My appearance here today is in opposition to the Reagan Administration's proposal to repeal percentage depletion and substitute cost depletion for oil and gas royalty owners. Royalty owners have been badly hurt not only by this viscious and heartless approach to our one small section of the economy, but also by the blazing indictment of the oil and gas industry by the Presidential tax advisors and speechwriters. In the President's Tax Message, he used terms like "free loading" and "fair share".

This is an insult to the oil producing states and shows little regard for the economic truth. The oil and gas industry is in very sad shape, as are the farm and ranch economies which are the prime beneficiaries from royalty income. This follows a long list of recent hits against the royalty owners and industry both verbally and economically, starting with the broken compaign promise to repeal the windfall profits tax.

The slap against the royalty owners is a "cash and carry" approach to the economic problems of the nation. If you have got the cash for contributions, such as the producers, you get to carry what you want, such as the retention of the intangible drilling costs, which I am the first to admit are also badly needed.

The royalty owners have been given in sacrifice to avoid the barbs from a liberal congress and the press. The energy industry is taxed at the highest rate of any in the nation according to all economic studies.

The administrations themes have been Fairness and Simplicity. What's fair about a proposal that singles out the poorest segment in the industry. The Adminstration's second theme is Tax Simplification. This is an insult to the intelligence of the 2 1/2 million royalty owners of our nation. This is not Tax Simplification it is Tax Complication.

Tax compliance with cost depletion would prove to be an enormous burden and financial expense for victimized royalty owners, who as a group are among the older and poorer segments of our society. Compliance with cost depletion is not easy for the oil companies even with access to well logs and reservoir reports. Comliance with cost depletion would be impossible for the great majority of royalty owners. As a result they would lose all depletion and pay ordinary income tax rates on the sale of a non-renewing capital assets.

In order to comply with cost depletion, one must know how much of the purchase price of the land he or she is to allocate to the oil and gas deposits. Further, the royalty owner must know how many barrels of oil or cubic feet of gas were in the reservoir at the time of the initial discovery of the reservoir. The oil company has an advantage, they have access to the well logs and the monies necessary to hire a petroleum engineer to research and write a reservoir report. The average royalty owner does not have access to well logs or the monies necessary to get a reservoir report, so compliance with cost depletion would be impossible. Thus, most royalty owners would lose all depletion and pay ordinary income tax rates on their sale of a non-renewable capital asset.

Please listen to us and take this message back to Washington. It may be our last chance and the Congress is our only hope against a "Vindictive Administration". "It is our contention that compliance with cost depletion would be unfair and impossible for the royalty owners and that percentage depletion should be retained for simplification."

HEARINGS ON TAX II IMPACT
CONDUCTED BY SEN. DAVID BOREN

Statement of
Raymond Wilcox
Fairview, Oklahoma
Member of the Board of Governors
of the National Association
of Royalty Owners, Inc.
and past president
Major County Mineral Owners Assoc.

June 14, 1985 Kirkpatrick Center

My name is Raymond Wilcox. I'm a farmer and royalty owner.

I live near Fairview, in Major County, an area where many farm operations over the years owe their survival to royalty income

We do not consider this income a windfall, "unearned", or any of the other labels we've heard from Congress in recent years. Our minerals were taxed, whether productive or not, for many years before the state laws were changed. During the Dust Bowl and in hard times, which we have had more often than not, courtesy of government programs and mother nature, these taxes took income often badly needed in other areas.

We in Major County and Western Oklahoma, resent greatly the attack on our sector of the economy by the advisors to the current White House Administration. We dislike it just as badly as we resented the actions of past President Jimmy Carter, when he too, set about to cut our oil income to shreds in the name somehow of National Security.

It is very hard to understand, Senator, how our cousins in the Northeast can be involved in any type of investment, and that investment is heralded as fine, pure and American. This opinion is given wide play by the television, newspapers and backed up by Treasury Secretary Baker.

Yet each time the tax writers meet, they refer to mineral and royalty owners as 1) the non-productive end of the industry, 2) and being subject to subsidies, and 3) our income is not only, quote, "unearned" but somehow obscene. This is given even bigger play in the nation's press.

In recent months I have had the pleasure of meeting many of the people in Washington responsible for this tax process. This has been during meetings of the National Association of Royalty Owners. I have also had the lessened pleasure of meeting many of the economists charged with providing the data from which this tax plan was put together.

I think we all would feel more fairly represented if there were a quota system imposed on those economists that draft our laws. We would feel much better if there were one Oklahoma or Texas accent in the lot. Most I talked to had not only never been in our part of the country, but clearly indicated they hoped they would never be. We are getting branded long distance by people who don't care a whit for the farm economy or the way that royalty income has provided a prop to survive in the bad years. It is this income that keeps many of us able to continue in the agricultural sector.

I think it is time that the Congressional delegations of all the oil states put their party differences aside, and jointly pressure the White House to digest and act upon the true facts about the royalty owner. You've had these facts since 1981, and I've been part of a group, NARO, dedicated to getting this story told. It has fallen on deaf ears at the White House.

We have had other members of the Oklahoma delegation dismissing us recently with a quick sentence to the press. They have said our financial needs were secondary to those of the producers, who not only escaped the tax plan in far better shape, but also have the mobility to pass along their costs, pull up camp or reincorporate, while we are locked to our land and our leases.

In closing, Senator, you have visited my county and met with its royalty owners. You didn't find many big spenders among our group, nor many political wheeler and dealers. This political process is new to many of us. And we are uncomfortable for the most part in having to speak out and stand up against those running our country. In years past, however, it seemed we had Washington leadership that didn't require a watchdog to protect our interests. We are simple people with what the Washington people may call some old-fashioned and out-of-style values. We love the land, our God, our family and our country. We also put high regard in a man's word.

This standard no longer seems to be working in Washington. We have been betrayed by election promises, sold out by those we voted to support, and dumped into the same package as a kind of criminal element by those that chart the tax destiny of our nation.

We thank you, Senator, for taking the lead to set things straight. And I thank you, personally, for being one of the very few in Washington, along with the other elected officials here, who are willing to give us an audience.

NATIONAL HYDROPOWER ASSOCIATION

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July 23, 1985

The Honorable Bob Packwood
Chairman
U.S. Senate Committee on Finance
Washington, D.C. 20510

Dear Mr. Chairman:

This letter is submitted by the National Hydropower Association (NHA) for inclusion in the record of the hearings held by the Finance Committee on July 17, 1985, on the impact of the President's tax reform plan on the energy industry. NHA is the trade association of the private hydropower industry, and its members include hydropower project developers, engineering consultants, equipment manufacturers, and other professionals serving the hydropower industry.

SUMMARY OF COMMENTS AND RECOMMENDATIONS

Hydropower is a major non-polluting domestic renewable energy resource. However, hydropower projects are very capital intensive, and as such are significantly affected by the proposed modifications to the cost recovery provisions of the Internal Revenue Code. The Capital Cost Recovery System proposed in the President's tax plan will eliminate the tax neutrality which currently exists between non-regulated energy investments and other capital investments, and will instead introduce a tax bias against investment in unregulated hydropower and other alternative energy projects. NHA urges the

Finance Committee to restore tax neutrality by including unregulated hydropower projects in CCRS Class 4 instead of CCRS Class 5.

The President's proposal would terminate the investment tax credit and would allow the energy tax credit to expire under its current terms at the end of 1985. The President's proposal retains the present hydropower transition rule, under which the credit is available through the end of 1988 for projects for which an application is filed with the Federal Energy Regulatory Commission by the end of 1985. NHA supports the retention of this transition rule, and also supports the use of this approach as a transition rule for other tax provisions, such as the investment tax credit. Finally, NHA supports the proposal in S. 1220 to extend the three-year transition period for an additional two years to compensate for increased delays in the licensing process.

DISCUSSION

Hydropower is a major non-polluting domestic renewable energy resource. Hydropower development, and particularly the maximum development of small scale projects at existing dams and non-impoundment sites, can make a significant contribution to our national security and economy by diminishing our dependence on foreign oil, and by promoting employment and economic growth. Industry figures estimate that, as of the Spring of 1984, 302 projects which had been commenced after the enactment of the Public Utilities Regulatory Policies Act (PURPA), in 1978, were completed or under construction. These 302 projects represent 572 MW of capacity. An additional 444 projects, representing 947 MW of capacity, had been approved by the Federal Energy Regulatory

Commission (FERC). Industry observers estimate that additional projects with a total installed capacity of 1,200 MW--the equivalent of one medium size nuclear plant--could be developed in the next five years.

However, hydropower development requires a substantial intitial investment. The cost of a hydropower project can range from $1,500 to $2,000 per KW installed for the simple retrofit of an existing dam, all the way up to $3,500 per KW installed for completely new development. This is considerably higher than the installed cost of other conventional energy technologies such as coal-fired steam turbine plants, which typically cost $1,000 to $1,500 per installed KW, and gas-fired turbines, which typically cost between $150 to $300 per installed KW. Moreover, the wide-range of stream flows at the typical site, coupled with the frequent need to discharge minimum releases for environmental purposes, means that the plant factor for the typical hydro plant is 40% to 50%, which is much lower than a typical coal plant, which may have a plant factor of up to 80%. Small scale hydropower is also not a low risk investment. Unlike electric utilities, most NHA members sell power at avoided costs established pursuant to PURPA, and they are therefore not guaranteed a minimum return on their investment. Thus, unlike regulated electric utilities, they are exposed to the same entrepreneurial risk as other unregulated businesses.

In recognition of the significant costs, benefits and risks associated with hydropower development, Congress enacted an 11% energy tax credit for small scale hydro projects in 1980. The credit is available through 1985, with an affirmative commitments extension for some projects through 1988. However, not all hydropower projects qualify for the credit, which is limited to small scale projects at existing dams and at sites which do not use a dam or impoundment. Like other business investments, non-utility hydropower projects also qualify for the investment tax credit and five-year depreciation.

Because hydropower projects are very capital intensive, the treatment of capital investments under the Internal Revenue Code is of considerable significance to the hydropower industry. Many aspects of the President's tax plan would have a direct and significant impact on capital intensive investments, such as hydropower projects. The most significant of these are the replacement of ACRS with the new CCRS depreciation system, the repeal of the investment tax credit, and the failure to extend the energy tax credit. For example, industry experts indicate that, under current conditions, typical projects which cost between $2,000 and $2,500 per KW installed are economical at an electric price of 5¢-6¢ per KWH. Under the President's plan, project cost would have to fall to $1,200-$1,500 per KW installed, which would confine development to a very limited range of sites. In the alternative, electric rates would have to rise to 7¢-9¢ per KWH, a rate which is only competitive in a very few parts of the country.

Members of the National Hydropower Association are encouraged that the Administration has recognized the special importance of energy production to this country, and NHA agrees that national security and economic development considerations demand that the tax code continue to be used to encourage domestic energy production. However, the President's energy tax proposals, which have been directed primarily at oil and gas production, have failed to give adequate consideration to hydropower and other alternative energy technologies, and could actually bias the tax code against alternative energy production. We hope that the Committee will correct this imbalance as it considers the various options for tax reform, and will provide needed encouragement for all forms of domestic energy development.

DEPRECIATION OF HYDROPOWER PROJECTS

The President's tax reform proposal would replace ACRS with a new depreciation method--the Capital Cost Recovery System (CCRS). Under CCRS, business assets would be classified in one of six CCRS categories, and would be assigned annual depreciation rates ranging from 55% per year for property in Class 1 to 4% for property in Class 6. Each class would also be assigned a specified depreciation period, ranging from four years for Class 1 to 28 years for Class 6. Electric generating equipment, including hydropower projects, would initially be placed in Class 5, and would be assigned a 17% annual depreciation rate and a ten-year depreciation period. By comparison, most other industrial equipment, with which hydro equipment must compete for investment dollars, is assigned to Class 4, with a 22% annual depreciation rate and a seven-year depreciation period.

Members of NHA are concerned that the President's proposal would eliminate the level playing field for hydropower investment which exists under current law. Under current law, non-regulated hydropower projects are included in the same ACRS category as the other non-regulated capital investments with which they must compete for investment dollars.

Accordingly, as far as tax treatment is concerned, tax benefits are not a consideration in choosing between hydropower and other unregulated investments. By contrast, the President's proposal would place most items of capital equipment in depreciation Class 4, while hydropower projects would be placed in depreciation Class 5. Thus, the level playing field would be eliminated, and hydropower projects would be assigned a depreciation period which is three years longer and 5% lower than that for other capital investments.

Because capital investments are evaluated on the basis of their internal rate of return, using a present value analysis, investment decisions are most heavily influenced by the return during the early years of the investment. Accordingly, the proposed differentiation in tax treatment between hydropower projects and other capital investments will create a bias against hydropower investments. Moreover, this bias is not fully compensated for by the inflation adjustments built into CCRS, since those adjustments only compensate for inflation, and do not compensate for the real cost of capital over time. NHA feels that, given the critical importance of energy to this country's economic health and national security, the creation of a tax bias against investment in hydropower projects at this time is highly inappropriate.

The President's proposal places non-utility hydropower projects in the same depreciation category as projects developed by regulated utilities, even though the investment considerations of regulated and unregulated electric producers are very different. A public utility's investment decisions are dictated primarily by the pattern of electric demand within the utility's service territory. Because regulated electric utilities are guaranteed a return on their investment, the tax consequences of their investments do not play nearly as significant a role in utilities' investment decision-making as they do in the investment decisions of unregulated companies, which must compete with other unregulated investments for capital. Because of this difference, electric utilities have traditionally been assigned a lower depreciation rate than non-regulated electric producers.

Under current law, hydropower and other unregulated electric power producers are included in the five-year ACRS category, while public utility generating equipment is included in the ten- or fifteen-year ACRS categories. Hydropower developers believe that this treatment is appropriate, and that unregulated hydropower projects, which are exposed to the same entrepreneural risks as other business investments, should continue to be accorded depreciation treatment comparable to that accorded other unregulated investments, and should not be treated the same as regulated utility investments. Accordingly, NHA urges the Committee to revise the proposed Capital Cost Recovery categories to include hydropower projects which are not classified as public utility property under current law in Class 4 rather than Class 5.

TRANSITION RULES

The President's proposal would not extend the energy tax credit and would instead allow the credit to expire under its current terms at the end of 1985. The proposal would allow the existing law transition rule for hydropower projects to remain in effect. Under this transition rule, the credit is available through 1988 for projects for which an application is filed with FERC before the end of 1985. This transition rule was enacted because hydropower developers invest considerable sums in bringing a project to the point at which an application can be filed with FERC, but cannot commence project construction until after FERC has completed its frequently lengthy review process. Hydro developers are continuing to spend substantial sums to develop projects which will be completed after the end of 1985 but before the end of 1988 in reliance on the continuation of this transition rule, and NHA certainly hopes that this aspect of the President's proposal will be reflected in the final measure recommended by the Committee. Moreover, NHA urges that, as the Committee considers appropriate transition rules for other provisions of current law which affect hydropower projects, including the repeal of the investment credit and ACRS, the Committee give careful consideration to adopting these same transition rules for those provisions in the case of small scale hydropower projects.

Finally, NHA hopes that the Committee will give careful consideration to the provisions of S. 1220, the Renewable Energy and Conservation Transition Act of 1985, which pertain to hydropower. Unlike other technologies, S. 1220 would not extend the basic 1985 expiration date of the credit for hydropower projects. However, it would extend the transition period currently allowed for hydropower projects for two years, through the end of 1990, for projects for which an application has been filed at FERC by the end of 1985. This extension is appropriate because the

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regulatory delay associated with hydropower project development has increased considerably since the credit was first enacted.

In 1980, when the credit was enacted, Congress reasonably expected that a project for which an application was filed by the end of 1985 could in fact be approved by FERC and constructed in three years, by the end of 1988. Under current circumstances, it is questionable whether the processing of an application filed by the end of 1985 can even be completed by FERC within the three-year period, much less that the project could be constructed within that period as well. Recently, for example, FERC adopted a Cluster Impact Assessment Procedure for reviewing the cumulative impacts of hydropower projects, which will extend the period for the processing of FERC applications for projects subject to that procedure by as much as one and one-half years. Accordingly, the two-year extension included in S. 1220 will not, as a practical matter, extend the credit to projects which were not originally intended to qualify for the credit when it was enacted in 1980. To the contrary, it is necessary to ensure that those projects will in fact be able to take advantage of the credit under current licensing conditions.

CONCLUSION

NHA recognizes that the Finance Committee has a herculean task in front of it as it evaluates the various options for tax reform, and NHA is prepared to work with the Committee in any appropriate way to ensure that issues affecting hydropower development are fairly and appropriately addressed.

Respectfully submitted,

Lee M. Goodwin
Vice President and General
Counsel

LMG/sh

UNITED STATES SENATE
COMMITTEE ON FINANCE

EFFECT OF TAX REFORM PROPOSAL ON ENERGY INDUSTRY

COMMENTS OF THE NATIONAL STRIPPER WELL ASSOCIATION

This presentation is from the National Stripper Well Association to show the effect of the President's Tax Proposals on the stripper well segment of the oil producing industry.

My association is concerned about the effect the proposed tax reform bill will have on the supply of crude oil that our country will have to defend itself. If the "Small Independent" segment of the industry loses the right to expense intangible drilling costs and loses percentage depletion the internal rate of return would be cut by 5½%. This is roughly equal to a $6.50/Bbl drop in price.

Stripper wells are very sensitive to price. Before 1980 stripper well production was decreasing an average of 15 Million barrels each year. However, starting in 1980 we had an increase of 7 Million barrels. The price on July 1, 1980 was $6.49 for lower tier, $14.95 for upper tier and $39.00 for uncontrolled. In 1981 we had a 25 Million barrel increase. The price on June 20, 1981 was $35.00. In 1982 the increase was 15 Million barrels, the price was $ 32.00. In 1983 we had a 20 Million barrel increase, the price was $30.00. Stripper wells are extremely price sensitive. Our calculations show that each $1.00 drop in the price of oil causes over 3000 wells to be plugged. And the facts are that when a stripper well is plugged the reserves are lost. In the first year alone the nation will probably lose at least 392 Million barrels of proven developed oil reserves if the independent loses percentage depletion. We only have 450 Million barrels in the Strategic Petroleum Reserve (SPR) at a cost of 14½ Billion. In the first year alone the loss of percentage depletion to the independent producer causes a loss of proven reserves to the nation almost equal to the Strategic Petroleum Reserve. National security is the reason for the SPR and national security should be the reason to keep the stripper wells (with their proven reserves) pumping.

Stripper wells account for about 60% of the oil wells in Texas, 71% in Louisiana and 81% in Oklahoma. Two out of three of all these thousands of stripper wells are operated by independent producers. These independent producers have drilled 84 to 88% of the total wells drilled over the past six years. The percentage of exploratory wells drilled by independents is even higher. It stands at more than 88% of total exploratory wells drilled. Without the stripper wells as a source of income to operate from, the independent producer cannot continue in business. Without percentage depletion to help cover the cost of this vast exploration effort, the independent producer cannot generate the funds to continue exploring for the new reserves this country needs so badly.

It is the common belief that the loss of the right to expense intangible drilling cost (IDC) does not affect the stripper well segment of the oil & gas industry. Nothing could be further from the truth. For every secondary and tertiary recovery project that is initiated or installed there must be drilling of additional wells. At the present time there are many fields ready for tertiary management by injection of polymers or by mycellar or surfactant treatment. In most cases, for every producing well in a tertiary recovery project there could be 2 to 3 additional wells drilled. If we are not allowed to expense those costs, there is a very real possibility that these projects will not go on stream and those known reserves will be lost.

Stripper oil wells are very sensitive to price and taxes. They are in the lower economic bracket of their producing life and any changes in tax policy should be given careful consideration by the tax regulators if they want those producing wells to continue to produce. Our figures indicate we have 4.6 Billion barrels of recoverable crude oil from stripper wells, under present producing techniques. Should we by some inadvertent mistake in tax policy cause 20% or 1/5 of these wells to be plugged we would forever lose almost 900,000,000 barrels of oil and if we had to replace that oil from a foreign market at $26 per barrel you can readily see the impact on the balance of payments. The worst feature of this scenario is that the reserves we lose are secure reserves which is all important to our national security.

It is difficult for the common individual to understand Millions, Billions and Trillions. He just cannot understand what a $100 Million Dollars is. He can conceive something like a small stripper lease. This lease has one stripper well on it and the salt water it makes is disposed of on an adjoining lease. No charges are made to the lease for salt water disposal. In 1984 the lease had a gross income of $3,635.00. It had expenses of $2,724.00 for a net income of $911.00. Under the present law, with 15% percentage depletion, and in the 50% tax bracket, there is $634.00 of that $911.00 to use in exploring for new reserves. If you take away percentage depletion and tax at the 35% rate, there is only $593.00 left. If you take away percentage depletion and tax at the present 50% rate there is only $455.00 left. These are figures that can be understood. The point is that percentage depletion is not a tax windfall - it is instead a tax necessity - if the nation expects to preserve the millions and millions of barrels of proven reserves that we have in this country.

If you take away the depletion for the independent producer you will destroy the independent segment of the petroleum industry. You will lose the proven petroleum reserves. Our enemies could not conceive of a more effective plan to assure the nations dependence on imported oil. The Treasury Department may not need the independent producer. The Congress may not need the independent producer. But Gentlemen, the Nation (for the sake of its own security) needs the independent producer to keep his stripper wells producing and to keep drilling for and keep finding domestic crude oil and natural gas. There is included in this presentation a summary from the Interstate Oil Compact Commission on the "Impact of Federal Tax Proposals on Stripper Wells". It is hoped that each Committee Member will take the time to study these statistics carefully.

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R H Krumme

R. H. Krumme
President

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SUMMARY

Impact of Federal Tax Proposals on Stripper Oil Wells

LOSS OF CRUDE OIL

EFFECT OF LOSS OF PERCENTAGE DEPLETION	NATIONALLY	TEXAS	OKLAHOMA	
STRIPPER WELLS ABANDONED	36,597	9,713	6,445	Wells
OIL RESERVES LOST*	849,000,000	225,000,000	150,000,300	Barrels
REDUCED OIL PRODUCTION DUE TO:				
PREMATURE ABANDONMENT	78,910	20,940	15,500	Bbls.per day
DECREASED 1985 DRILLING	2,400	575	400	Bbls.per day
ECONOMIC IMPACT IN FIRST YEAR TOTAL	81,310	21,515	15,900	Bbls.per day
REDUCTION IN OIL AND GAS REVENUES	$749,000,000	$198,000,000	$147,000,000	Per year
REDUCTION IN ROYALTY PAYMENTS	$113,000,000	$ 30,000,000	$ 22,000,000	Per year
REDUCTION IN SEVERANCE TAX PAYMENTS	$ 45,000,000	$ 9,100,000	$ 10,400,000	Per year
REDUCTION IN 1985 DRILLING	$300,000,000	$ 72,000,000	$ 54,000,000	Per year
REDUCTION IN JOBS	69,000	18,000	14,000	

*Reserves figure is cumulative. All others are first year only.

-- more --

MEMBER STATES: ALABAMA · ALASKA · ARIZONA · ARKANSAS · CALIFORNIA · COLORADO · FLORIDA · ILLINOIS · INDIANA · KANSAS · KENTUCKY
LOUISIANA · MARYLAND · MICHIGAN · MISSISSIPPI · MONTANA · NEBRASKA · NEVADA · NEW MEXICO · NEW YORK · NORTH DAKOTA · OHIO
OKLAHOMA · PENNSYLVANIA · SOUTH DAKOTA · TEXAS · UTAH · VIRGINIA · WEST VIRGINIA · WYOMING
ASSOCIATES: GEORGIA · IDAHO · NORTH CAROLINA · OREGON · SOUTH CAROLINA · WASHINGTON

IMPACT OF FEDERAL TAX PROPOSALS ON STRIPPER OIL WELLS
(continued)

BASIS:

- Two out of every three stripper wells are operated by independents.
- Most stripper well equipment is fully depreciated resulting in no cost basis depletion.
- The removal of percentage depletion results in the shortening of stripper well economic life by 3.75 years.
- Stripper wells operated by independent producers are exempt from windfall profits taxes.
- For every one million dollars of oil and gas revenue lost employment decreases by 91 jobs (39 direct jobs in the petroleum industry and 5 indirect jobs in other industries).
- The average wellhead crude oil price for stripper wells will be $26.00 per barrel in 1985.
- Every dollar in lost oil and gas revenue results in $0.40 less spent to drill new wells.

Preliminary Evaluation
of Treasury Tax
Proposal on State Resources,
Economy, and Tax Revenues
January 8, 1985

TESTIMONY OF THE OHIO OIL & GAS ASSOCIATION
BEFORE THE SENATE FINANCE COMMITTEE

Mr. Chairman and Members of the Committee:

The Ohio Oil & Gas Association represents over 2,600 independent producers and persons in supporting businesses and professions who operate in the Ohio oil and gas industry. We find that too often public officials are unaware of this significant industry. They believe that all oil and gas of any significance is produced in the Southwest, i.e., Texas, Oklahoma, Louisiana and that if there is oil and gas produced elsewhere, the economics and problems would be the same. Such a belief is inaccurate, and for that reason, the Ohio Oil & Gas Association is compelled to let this Committee know about the Ohio oil and gas industry and the devastating impact changes in the tax structure affecting the industry will have on our members.

In 1984, the independent producers of Ohio drilled 5,000 wells. This number was only exceeded in Texas. Unfortunately, Ohio wells are usually small producers compared to the Southwest. Most produce less than 10 barrels of oil per day, or an equivalent amount of gas - approximately 70 Mcf per day. For most regulatory purposes, these wells are classifed as "stripper wells".

Small wells do not mean that there is a small impact on our vital energy resources and reserves. A recent study of the American Petroleum Institute estimates that there are 442,000 stripper wells in the United States. Nationally, stripper wells produce at the rate of 462,000,000 barrels of oil per year which represents 15% of all oil production in the United States and is more oil than the United States imported from the Middle East and Africa combined, in 1984. As such, stripper wells provide a substantial portion of America's oil needs which otherwise would have to be imported at a cost of $13,000,000,000 annually.

In 1984, the revenues from oil and gas production in Ohio amounted to approximately $1,008,400,000. In addition, the industry supported some 15,000 employees with an annual payroll of over $330,000,000.

An average well in Ohio is about 3,500-5,000' deep and costs approximately $150,000. Over 75% of the capital required to drill and complete our wells come from investors outside of the industry. The balance (25%) comes from internally generated funds of the producers and operators, or from borrowing.

Ohio is a densely populated state with a large industrial base. Industry uses a substantial amount of oil and gas. Over 80% of the gas used comes from outside Ohio which increases our cost and makes the state vulnerable during shortages or high usage periods caused by unusually cold weather. Due to its proximity to users of our state, Ohio's gas production can be used very effectively during shortages or extreme needs. For example, during the shortages of the mid-70's, many industries and businesses were closed and operations of commercial establishments were severely curtailed. Even many schools and colleges were temporarily closed. Special programs for delivery of Ohio gas were developed and used to alleviate the problem. Thus, if it had not been for the availability of local Ohio gas, the problem would have been worse.

Tax Reform Proposals and Their Impact on Ohio

Many tax change proposals are being discussed. Their impact on the Ohio industry will obviously vary, depending on the proposals. While it is true that the President's most recent proposal would maintain the deduction for intangible drilling and development costs and the depletion allowance for stripper wells, we know that there are those who would eliminate or modify those provisions. For example, in the proposal commonly known as "Treasury I", both were eliminated.

Further, in that proposal, Treasury representatives realized that this action would disfavor new investment in drilling and exploration, and direct the capital to other businesses. They stated "...The capital and labor released from the energy and mineral sector as a result of a more neutral tax policy would be employed more productively in other industries."

Yet oil and natural gas provide 70% of the energy used in our industrial society. We obviously cannot get along without it. Witness the major disruptions of the seventies caused by cartelization of crude oil and domestic natural gas shortages. How can these "reformers" seriously suggest that it is beneficial to shift capital and labor away from the oil and gas industry which supplies 70% of our energy and which has just been instrumental in the recovery from those crises of the seventies?

In Ohio, if the deduction for intangible drilling costs is eliminated or seriously impaired drilling will be reduced by 70-80%. This would be a drop from 5,000 wells to 1,000 to 1,500 wells.

In late 1984 and early 1985, the Ohio Oil & Gas Association surveyed its members regarding the impact of the proposals under Treasury I. The conclusions are as follows:

1. Expenditures for oil and gas development in Ohio would be reduced by 72%;

2. The number of new wells in Ohio would decline by 71%;

3. Revenues paid to related industries in Ohio would decline by 54%; and

4. Employment in the industry in Ohio would be cut by 43%.

In 1984, producers and investors spent approximately $690 million in developing new oil and gas reserves in Ohio. Interestingly, those same producers and investors received approximately $686 million from oil and gas sales after payment of landowner royalties, production taxes and lifting costs. Approximately $150 million was paid in royalty payments to landowners. All of this would change dramatically if drilling expenditures were reduced by 72% as indicated above. A reduction of 43% in employment would be a loss of 6,450 jobs and an annual loss of $146 million in payroll.

The elimination of these tax provisions would also have a disportionate adverse affect on the small producer typical in the Ohio industry. Without tax incentives, third party capital representing 75% of our funds would disappear. Our members do not have capital markets to draw upon as do many large company producers. Our capital sources are raised primarily from small investors on a year-to-year basis.

The concept of allowing a deduction for the costs involved in drilling an oil and gas well has been in the law since the early days of the income tax. The same is true of the concept of a depletion deduction to avoid draining away the producer's capital by burdensome taxation on a wasting asset. Very simply, these provisions encourage people who are not directly involved in the oil and gas business to invest their funds in that very risky business. This causes thousands of productive wells to be drilled in Ohio that would not otherwise be drilled.

Regional Tax Effects

At the beginning of this testimony, we stated that it was important to bring to your attention unique characteristics of the Ohio industry so that this Committee is aware that what is done to the tax laws affecting the oil and gas industry as a whole may well have a disproportionate adverse impact on a region.

Under the 1984 Tax Reform Act, a change was made in the ability of a person to deduct intangible drilling costs. In order for the expense to be deductible in the year actually paid, a well has to be spudded by March 31 of the following year. Unfortunately, Ohio's weather is not very cooperative during January, February and March. In addition and as a result of the weather, counties post frost laws which prohibit the movement of heavy equipment on roads which precludes a producer from completing the necessary work to be entitled to a deduction.

These factors are totally out of the control of the operator and the producer. Although most of these wells would have been completed within 180 days after the end of the year, drilling had to be commenced regardless of the increased cost due to inclement weather or field conditions. Yet other regions of the country are not confronted with the weather or frost laws similar to those of Ohio and are given an economic advantage, a result that is real, but in all likelihood not intended by Congress.

Another example of such an effect is the continued effort to eliminate the depletion deduction. This would clearly cause thousands of stripper wells in the country to be plugged and abandoned because they will be no longer economically feasible. If this occurs, Ohio will be especially hard hit since most of its 57,000 wells are stripper wells. This, of course, supports the President's conclusion to retain the depletion deduction for stripper wells.

Conclusion

As tax changes are debated, it must be recognized that even if this Committee rejects the early far-reaching proposals of Treasury I, any tinkering in the tax structure for the oil and gas industry will reduce the available capital needed to drill additional wells. Even if the current incentives are left in place, a back door effort to increase taxes through use of the alternative minimum tax will have the same impact as described above. The economics of the oil and gas industry is frail. If an investor's return on invested capital is decreased due to increased taxes, the capital from outside the industry will not be invested. And, in addition, an increased alternative minimum tax will also reduce the amount of internally generated drilling funds. Thse funds have traditionally been used to produce more oil and gas.

We are importing over 5,000,000 barrels of foreign oil and refined products every day. This has caused our national trade imbalance to surge to an unprecedented high of more than $120 billion in 1984. About one-half of this deficit went for the oil imports and this should be worse in 1985. We will need to drill at least 685,000 wells at a cost of $440 billion in the next decade, just to maintain our current levels of domestic production.

Before changes are made, Congress must look hard at the ultimate effects of the proposals. Since Ohio's industry is made up almost exclusively of independents, by looking at Ohio's independent producing industry, you can determine the effects nationally. We have said that drilling would be reduced by 70-80% in Ohio if the worst of such changes are adopted. But this is, in all likelihood, going to be true for independent producers all over America. This major reduction in drilling and exploration will cause a monumental reduction in reserve development in our country. This, of course, will ultimately cause shortages and, in the long run, significantly higher prices for American consumers. They, the American consumers, will end up paying more and more for gasoline and natural gas, not because of any plan to raise prices, but because of a shortage created because Congress decided to depart from a proven method of directing the necessary capital to the industry.

Finally, if we cripple the independent producing industry, we will obviously have to turn to greater imports. We already import approximately 1/3 of our oil. Estimates show that just to maintain this level in the next 10 years, we will have to drill hundreds of thousands of new wells in this country. But, with outside investment eliminated from the business, it is clear that nowhere near that many wells will be drilled. Thus, our reliance on oil from foreign sources will increase and increase again and our trade problems will be worsened. Given our recent history, it would not appear to be necessary to discuss the folly of allowing this to happen.

The producers in Ohio are independent producers. They have no ability to pass through increased costs like the majors. They are largely funded by capital invested from the outside. That investment relies on the tax provisions which are in question. Take them away or weaken them significantly, and you will eliminate the investments - and thus the independent producers of Ohio and other states. The issue is whether we shall have an independent producing industry. You control the answer.

STATEMENT OF

PANHANDLE PRODUCERS & ROYALTY OWNERS ASSOCIATION

BY

HARRY H. PHILLIPS
PRESIDENT

I.

Introduction

The Panhandle Producers & Royalty Owners Association ("PPROA") is an association of 800 oil and gas producers, royalty owners and service and supply companies located in the Texas Panhandle. On behalf of the Association, I respectfully request that the following comments be made a part of the Committee record on federal tax reform.

II.

PPROA Supports A Fair Tax System

The PPROA membership supports Congressional attempts to simplify, if possible, the current tax code. However, we cannot support changes made in the name of simplification and fairness that will jeopardize the nation's security and eliminate the ability of small independent producers to compete.

The current tax code recognizes the inherent risks in oil and gas exploration and development and has provided the tax incentives necessary to raise capital for these ventures. The petroleum industry is unique: exploration and development of oil and natural gas are both capital intensive and high risk; there is a long lead time before large capital investments generate significant returns; a successful venture must pay for itself as well as the cost of dry holes discovered (four out of five exploratory wells are dry holes); and the products, oil and natural gas, discovered and produced, are vital to the nation's security. If the independent oil and gas industry is to continue to do its part in the development of the nation's petroleum reserves, current tax incentives must be retained.

III.

The Petroleum Industry Is A Leading Taxpayer

The PPROA does not advocate retention of the current tax treatment of the petroleum industry as a means of avoiding taxes. The Association supports differential tax treatment, not preferential tax treatment. In the past, the petroleum industry has paid its fair share of taxes and it will continue to do so if the current tax treatment is retained. In November, 1984, the staff of the Joint Committee on Taxation released a report of a study of the effective tax rates of some 200 companies in all major industrial sectors. This report shows that for 1983, while the petroleum industry accounted for only 21 percent of the total U. S. income for all the companies, it paid 27 percent of the total taxes. The study did not include the payment of the windfall profit tax or state severance taxes.

IV.

Current Tax Provision Should Be Retained

A. Statutory Depletion

The statutory depletion allowance has for many years served as an incentive to encourage the exploration for and the subsequent production of oil and gas. The statutory depletion allowance, when available, does increase the after tax return to a producer over what that return would be without the allowance. This has been the Congressional intent for decades. It is important to note that the allowance is only available to certain taxpayers, and then is subject to significant limitations and penalties.

First, the allowance is only available to independent producers and royalty owners, and is limited to 1,000 barrels of production (or equivalent gas production) per day.

Second, the allowance is only available for properties which are "proved up" by exploration and development work. The "transfer rule" prevents an investor from purchasing an income stream sheltered by statutory depletion.

Third, the depletion allowance is limited to fifty percent of the net income from the property on a property-by-property basis. Because of this limitation, the allowance provides little, if any, benefit on marginally productive properties. In addition, the allowance is further limited to sixty-five percent of a producer's taxable income. This limitation serves to severely limit the availability of statutory depletion to many independent producers who annually reinvest a significant portion of their cash flow in exploration and development efforts.

Fourth, to the extent a producer is able to claim the statutory depletion allowance, in most cases the statutorially mandated allowance is subject to the alternative minimum tax which effectively eliminates forty percent of the originally intended benefit.

The income from production of oil and gas is different from income produced by other assets. The production is actually the sale, piecemeal, of the underlying asset itself. The statutory depletion allowance is a provision which recognizes this difference, and to some extent mitigates the contrasting results a taxpayer currently recognizes if the asset (the oil and gas in place) is sold by production or is sold en masse. Under current law, gain on the sale of a mineral interest is afforded capital gain treatment (with some exceptions).

The President's tax proposal would eliminate statutory depletion for all production except production by independent producers from certain stripper wells. The proposal would also treat all the gain from the sale of oil and gas in place as ordinary income. The President's proposal does provide for an indexing of the gain of oil and gas properties, and for the recovery of this indexed basis by a cost depletion deduction. In many cases however, particularly among royalty owners, the basis of the property is zero or not know. These taxpayers will realize no benefit from cost depletion. The indexation provisions are meant to limit taxation to "economic income" and to prevent the taxation of the inflationary increase in value of an income producing asset. This will not be the result of the President's proposal.

The PPROA sees this change as particularly burdensome on royalty owners who will lose the statutory depletion deduction under the President's proposal. The Association prepared a survey of its royalty owner members to determine the income range of those individuals. It was found that 14 percent of those surveyed had an income, including royalty payments, of less than $25,000.00 in the 1984 tax year. In analyzing this figure, it is important to note two factors. First, the PPROA survey was made solely of member royalty owners. It does not reflect the income level of royalty owners whose income from royalties is so low that membership in an oil and gas association is not economically justified. Secondly, the survey inquired into the income earned in the 1984 tax year. Because of the drop in crude oil and natural gas prices, a number of respondents will find a large drop in their royalty income for the 1985 tax year. Thus, the 14 percent figure is a very conservative estimate of the number of royalty owners earning less than $25,000.00 annually.

The National Association of Royalty Owners (NARO) in its survey found that only 10 percent of U. S. royalty owners earned more than $70,000.00 annually. In addition, NARO's figures show that 73 percent of the nation's royalty owners are over 61 and either nearing retirement or at retirement age.

In recent years the agricultural sector of the American economy has been severely depressed. Because royalty owners are most often rural residents, it has been royalty payments that have kept farms and ranches afloat and rural communities alive. Elimination of percentage depletion in many cases will place a greater tax burden on America's elderly, middle class and further aggravate American farm problems.

B. Intangible Drilling Costs

Under current law IDC's are a tax preference item to the extent they exceed "net income from oil and gas". Generally, this treatment means that an active independent producer, that is, one who has oil and gas production income and who spends a high percentage of the available cash flow on additional drilling, is not penalized by the alternative minimum tax for expenses incurred in drilling additional wells. The President's proposal would alter this, and subject a portion of the drilling costs to the alternative minimum tax, regardless of the oil and gas income by the producer. This in effect increases the tax burden of the independent producer, and increases the costs of developing new domestic energy reserves. The PPROA opposes this change which adds an additional tax burden to the active independent producer.

V.

Conclusion

The current tax code stimulates drilling and exploration activity in the United States without granting the petroleum industry preferential tax treatment. The United states Congress would be ill advised to change current differential tax treatment for the petroleum industry in the name of "simplification" or "fairness". To do so would jeopardize the very security of the nation.

(814) 362-6722

PENNSYLVANIA OIL AND GAS ASSOCIATION
P.O. Box 180 • 108 Main Street • Bradford, Pennsylvania 16701

July 30, 1985

The Honorable Bob Packwood
Chairman
Committee on Finance
SD-219 Dirksen Senate Office Bldg.
United States Senate
Washington, D.C. 20510

Dear Senator:

On behalf of the 900+ members of the Pennsylvania Oil and Gas Association (POGA), thank you for the opportunity to submit our comments for inclusion in the record of your January 17th hearing on the impact of the President's tax reform proposal on the Nation's energy industry.

POGA's membership consists of the large majority of companies and individuals who explore for and produce oil and natural gas in Pennsylvania. These businesses are typically small and rely heavily on outside investment capital to finance their drilling programs.

Compared to other parts of the country, Pennsylvania's production is also small. Most wells are "stripper" or marginal producers, capable of less than 10 barrels of oil or 70 MCF of gas each day. Generally, oil and gas reserves are also small, but the contribution Pennsylvania's production makes to the overall energy scenario should not be minimized. The state's natural gas reserves are strategically located in and near some of the heaviest industrial, commercial and residential markets in the nation. Their proximity to these areas permits our natural gas to serve as the lowest cost incremental supplies available. These reserves are also the most reliable since, unlike the larger volume producing wells elsewhere, Pennsylvania's lower production wells provide a consistent source of gas over many years.

Pennsylvania Grade Crude Oil also offers a qualitative standard against which many other lubricants are measured. As an automotive lubricant, it is famous the world over and holds a major share of the country's lubricant market.

The Impact of Tax Reform on Pennsylvania

When the Treasury Department's original proposal was publicized, POGA surveyed its membership to determine the impact of certain provisions. The survey's results were startling not only because the producers who responded were responsible for more than 72% of the new wells drilled in the state in 1984, but more importantly, because of the respondents' assessment of the tax proposal's impact on their business.

Briefly, the adoption of the Treasury's original proposal would drastically reduce the number of new oil and gas wells drilled in the state. From this year through 1987, overall activity would decline annually to a low of 84% below currently projected activity. The basic reason for such a radical impact is the proposal's effect on capital formation.

If Pennsylvania's oil and gas industry lost the tax deduction for intangible drilling costs and percentage depletion, a typical gas well, for example, would show a 47% decrease in the rate of return for each dollar invested. Instead of a 14.8% after-tax return, an investor could expect only a 7.9% return. (One would do better in the "risk-free" government securities market.)

The overall impact of the Treasury's first proposal is clearly spelled out in the enclosed report. What is more important, though, is the recognition of the original proposal's problems shown by the President in his second tax reform proposal.

President Reagan's second, more realistic proposal, clearly recognized the essential value of the deduction of intangible drilling costs to all segments of the domestic petroleum industry. His second proposal also reflected a sanguine understanding of the need to maintain the productive capacity of the country's stripper, or marginally producing wells by the retention of percentage depletion for these wells.

If the President's latest tax proposal is adopted, the position of Pennsylvania's stripper oil and gas production as a reasonably strong small business enterprise will remain intact. Without the existing tax incentives that are crucial to the state's oil and gas investment climate, ie. the percentage depletion allowance and the deduction for intangible drilling costs, it is difficult to imagine a profitable future for the industry in the state.

Sincerely,

Stephen W. Rhoads

Stephen W. Rhoads
Executive Vice-President

SWR:dea

Enclosure

cc: Tax Committee
Chairman of the Board

PENNSYLVANIA OIL AND GAS ASSOCIATION
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THE EFFECT OF THE TREASURY DEPARTMENT'S "FLAT TAX" PROPOSAL ON PENNSYLVANIA'S OIL AND GAS INDUSTRY

SURVEY RESULTS

The Pennsylvania Oil and Gas Association surveyed the state's independent oil and gas producers and drilling contractors in late February to assess the impact of the Treasury Department's so-called "Flat-Tax" proposal on new oil and gas well drilling over the next three years. The response to the survey was remarkable: the operators and contractors who responded to the survey were responsible for more than 72% of all new oil and gas wells in Pennsylvania during 1984. The respondents account for more than 97% of all new oil wells drilled and for more than 44% of the new gas wells drilled last year.

The Treasury Department's Proposals

President Reagan in his 1984 State of the Union Address, requested the Treasury Department to prepare a study of the U.S. tax system and recommend proposals for reform and simplification. On November 27, 1984, Donald Regan, then Secretary of the Treasury, submitted the text of Tax Reform for Fairness, Simplicity and Economic Growth to the President. On December 3, 1984, the Treasury Department released a second volume entitled Tax Reform for Fairness, Simplicity and Economic Growth - General Explanation of the Treasury Department Proposals. These documents set forth the specific recommendations and policy reasons for changing the basic framework of the overall tax system of the United States which includes, in general, a three bracket system for individuals setting tax rates at 15%, 25%, and 35%; eliminating or reducing many business tax credits and deductions; and establishing a flat 33% corporate tax rate.

In regard to oil and gas exploration and production, the recommendations include the elimination of percentage depletion January 1, 1986 for existing and future production; the elimination of the expensing of intangible drilling costs effective January 1, 1986, and the taxation of partnerships as corporations with 35 or more limited partners effective for partnerships formed after the date legislation is introduced into legislation beginning January 1, 1986 and effective for all partnerships formed prior to the date legislation is introduced to be effective to January 1, 1990. A detailed summary of all provisions affecting the oil and gas industry is included as Exhibit A.

A stated objective of the reform proposal is to permit the market forces to control investment decisions rather than the tax system. The report states that "under the current progressive tax system, all taxpayers face higher marginal rate tax rates in order to make up for the revenue lost by numerous special preferences, exceptions and tax shelters used by a relatively small number of taxpayers. As a result, the tax system is complex and inequitable. It reduces economic incentives, hampers economic growth and is perceived to be so unfair that taxpayer morale and voluntary compliance have been seriously undermined." In applying this cornerstone objective of reliance on free market prices to energy, the Treasury Department has ventured to state that "(t)o be consistent with the goal of increased reliance on free market forces underlying both this administration's energy policy and these proposals for fundamental tax reform, the Treasury Department proposes that expensing of intangible drilling costs and percentage depletion should be replaced by cost depletion."

Specifically, the Treasury report states the following in regard to intangible drilling costs and percentage depletion:

> The energy industry is currently favored over other business activities through the tax system in two unique ways, first intangible drilling costs - the expenses of drilling, other than those for the purchase of physical assets - can be deducted currently even if drilling is fruitful. This acceleration of cost recovery produces several adverse effects. Investment in oil production is favored relative to other investments with high pretax returns. Drilling is favored relative to less expensive means of exploration that are not tax-preferred.
>
> Investment in energy sources where capital costs are a relatively high share of total costs are favored relative to others. Tax burdens on energy corporations and on individuals investing in the energy sector are reduced, interferring significantly with tax equity. As a result, the perception of fairness of the tax system is tarnished.
>
> Second, except for major integrated oil companies and certain large independent producers, cost depletion is not required for those costs of exploration and development that are not written off immediately.
>
> Percentage depletion is not merely an accelerated alternative to cost depletion as a means of recovering investments in natural resources; rather, it is a subsidy to the exploitation of natural resources that is administered through the tax system. This subsidy increases with the prices of natural resources. Percentage depletion encourages over-production of scarce domestic resources, adds complexity to the tax system, unfairly benefits owners of those resources and erodes the percentage of fairness of the tax system.

The Pennsylvania Oil and Gas Association (POGA) carefully reviewed the proposals put forth by the Treasury Department. In order to accurately assess the impact of these proposals, the Association conducted a survey of those who would be most affected: the state's independent oil and gas producers and drillers. Their response clearly and dramatically shows that if the above-mentioned proposals of the Treasury Department are adopted, Pennsylvania's oil and gas industry would be crippled due to an inability to raise enough capital to continue the adequate development of known oil and gas reserves. In essence, the Treasury's proposal eliminates the "exploitation" of "scarce" natural resources by creating a tax environment inimical to capital formation for further oil and gas exploration and development. Our survey unequivocally demonstrates that for the Pennsylvania oil and gas producer, the net effect of the repeal of these necessary provisions of the tax code is a severe reduction in overall economic activity spawned by the industry throughout western Pennsylvania.

Another independent survey conducted by the Pennsylvania Natural Gas Associates (PNGA) corroborates our findings. Their survey of the state's natural gas producers who rely most heavily on outside sources of drilling capital indicated that of the proposed changes (see Exhibit A), amortization of intangible drilling costs and the repeal of percentage depletion will have the most dramatic impact. 57% of those who responded to PNGA's survey indicated that they would cease all drilling activity if the Congress acts to eliminate the deduction for expensing of intangible drilling costs while 43% said that they would reduce their drilling programs. Finally, 86% of the producers polled said that they would cut back in the number of wells they plan to drill if the proposal to repeal the percentage depletion allowance is enacted.

The Effect of the Treasury Proposal on New Well Drilling

Pennsylvania's oil and gas producers intend to expand their activities from 1984 levels through 1987. Overall, new well drilling is expected to increase from 2,856 wells last year to 5,111 during 1987, a 79% increase in annual activity. During the 1985-1987 period, a total of 13,495 new oil and gas wells are projected to be drilled. 5,143 (38%) of the new wells will be new oil wells, while 8,352 (62%) will be new gas wells.

Adoption of the Treasury's proposals would drastically reduce new well drilling in Pennsylvania. Overall activity would decline each year to a low of 807 new wells in 1987, an 84% decrease in currently projected activity. The total number of new wells drilled between 1985 and 1987 would equal 3,308, almost 10,200 fewer wells than projected if the Treasury's proposal is not adopted. (See Table II). By 1987, an equal number of oil and gas wells would be drilled. The results of the survey show that the enactment of the Treasury's proposal will impact on the state's natural gas production industry more heavily than it will on Pennsylvania oil producers since the natural gas producers rely more heavily on outside investment capital for their drilling programs.

The Effect of the Treasury's Proposal on Capital Formation

The basic reason why the Treasury's proposal has such a significant impact on new well drilling in Pennsylvania is the proposal's effect on the return on capital invested in new drilling programs.

Under current tax law, for example[1], a typical Pennsylvania gas well can be expected to show a discounted after-tax return equal to about 14.8%. If the Treasury's proposal is adopted, however, the rate of return on the same wells decreases to only 7.9% (a 47% decrease). At that rate, the new well is equal to or less profitable than a risk-free U.S. Government security. Since investment in a no-risk, high return, very liquid government security is clearly more advantageous and prudent than an investment in an illiquid, potentially non-existent underground asset, any investor would have little reason (other than the gambler's instinct for play) to finance new oil and gas well drilling.

---

[1] The following example was prepared by Angerman Associates, Inc., Pittsburgh, PA.

Under a "business as usual" scenario, Pennsylvania's oil and gas producers and drillers plan to invest more than $2.312 billion in new well drilling between 1985 and 1987. A full 87% or $2.025 billion is expected to be invested in new gas wells (Table I). Gas producers expect to raise roughly $1.3 billion or 64% of the total capital from outside sources. The remaining $735 million will be generated from the producers themselves (Table VII).

During the same three-year period, assuming the tax law remains unchanged, Pennsylvania's oil producers also plan significant investments. Capital invested in new oil wells during that period is expected to exceed $287 million. Oil producers intend to share the capital burden equally with outside investors. Oil companies plan to invest roughly $141 million and to raise another $146 million from outside sources (Table VII). As noted earlier, if the Treasury's proposals are enacted, new well drilling will decline significantly. The decline will be a direct result of the inability of oil and gas producers to raise sufficient outside investments to maintain drilling programs of any magnitude. Both oil and gas producers will be forced to rely almost exclusively on their own capital.

Our survey indicates that during 1985, investor uncertainty over the potential elimination of these tax provisions will be sufficient to substantially reduce the number of wells to be drilled. Our analysis of the potential impact of the reduction in new well drilling shows that the amount of internal and external capital available to the industry will be sharply curtailed. In 1985, for example, our survey analyses indicated that instead of $444 million, the Pennsylvania producers who responded to our survey could have as little as $10.3 million available from outside sources. And if the Treasury proposal becomes law, our analyses indicated that almost no outside capital could be available to Pennsylvania producers during 1986 and 1987. Investors will readily perceive and put their money in less risky and more lucrative investments.

Because of the large share of capital needed by gas producers for their anticipated drilling programs, the gas segment of the industry will be hit hardest by the loss of investment capital. Gas producers will be forced to rely almost exclusively on their own cash flows to drill new wells. But the decline in new well drilling will lead to a decline in company cash flows and consequently to fewer dollars available for investment in later years. As a result, internal capital available for investment in new gas wells is also expected to decline during the 1985-1987 period by 47% to $291 million from a projected $735 million (Tables III, VI, VII). Total capital lost to new gas well drilling during the three-year period will equal a full $1.63 billion, 81% below projected investment levels (Table I).

Although the number of dollars involved is not as large, the lack of external investment funds will force a similar retrenchment in Pennsylvania's oil industry. Some capital will be available from outside sources during 1985, but if the Treasury proposals are adopted, most sources of external capital will dry up in 1986 and 1987. And like the gas industry, lower investment in new well drilling will shrink the amount of internal capital available for investment in new oil well drilling. By 1987, the amount of capital available for investment in new oil wells will be almost exclusively derived from internal company sources and will have declined 61% below the projected 1987 level. For the 1985-1987 period, a total of $192 million in both internal and external capital will have been lost to the oil industry for new well drilling.

Overall Economic Ramifications

Pennsylvania's oil and gas production industry plays a significant role in the economic base of western Pennsylvania. If the Treasury's proposals are adopted, Pennsylvania will see no less than 13.8 million barrels of oil and 1.08 TCF of natural gas in lost production. This production, at today's low prices, represent a loss of at least $3.1 billion in lost income available to the region. The decline in activity will also deprive royalty owners of roughly $380 milion in cash payments. Pennsylvania, over the next three years alone, will lose capital investments greater than $1.8 billion, most of which, $1.4 billion, will come from sources outside the region and the state.

The loss of new well drilling activity will also cause an increase in unemployment in western Pennsylvania. If other states with similar oil and gas characteristics are representative (Ohio, for example), over 40% of the current permanent full-time jobs in the oil and gas production industry in Pennsylvania will be lost. This rate translates into a loss of more than 2,100 jobs. And because of the downturn in drilling-related activity, other industries can also expect to experience a decline in their employment rolls. A recent Interstate Oil Compact Commission study implies that Pennsylvania could expect to experience a loss of an additional 2,800 permanent full-time jobs in companies which rely heavily on oil and gas drilling activity.

PROJECTED OIL & GAS WELL DRILLING IN PENNSYLVANIA "BUSINESS AS USUAL"

TABLE I

YEAR	NUMBER OF WELLS DRILLED[4]			CAPITAL INVESTED		
	OIL	GAS	TOTAL	OIL	GAS	TOTAL
1984	2015[1]	841[2]	2856[3]	$112,535,740	$203,955,960	$316,491,700
1985	1400	2514	3914	$ 78,188.600	$609,685,220	$687,873,820
1986	1556	2914	4470	$ 86,901,040	$706,691,620	$793,592,660
1987	2187	2924	5111	$122,141,760	$709,166,780	$831,258,550
TOTAL	7156	9193	16351	$399,767,140	$2,229,499,600	$2,629,216,700
TOTAL '85-'87	5143	8352	13495	$287,231,400	$2,025,543,600	$2,312,725,000

[1] Represents at least 97% of all oil wells drilled in 1984.
[2] Represents 44% of all gas wells drilled in 1984
[3] Represents 72% of all wells drilled in 1984.
[4] Projections in 1965 through 1987 reflect survey results only.

PROJECTED OIL & GAS WELL DRILLING IN PENNSYLVANIA THE PROJECTED "FLAT TAX"

TABLE II

YEAR	NUMBER OF WELLS DRILLED			CAPITAL INVESTED		
	OIL	GAS	TOTAL	OIL	GAS	TOTAL
1984	2015	841	2856	$112,535,740	$302,955,960	$316,491,700
1985	862	801	1663	$ 48,141,838	$194,255,320	$242,397.150
1986	426	412	838	$ 23,791,674	$ 99,916,590	$123,708,260
1987	405	402	807	$ 22,618.845	$ 97,491,432	$120,110,270
TOTAL	3708	2456	6164	$207,088,100	$595,619,300	$802,707,400
TOTAL '85-'87	1693	1615	3308	$ 94,552,360	$391,663,340	$486,215,700

The EFFECT of the TREASURY'S "FLAT TAX" PROPOSAL on OIL & GAS WELL DRILLING in PENNSYLVANIA

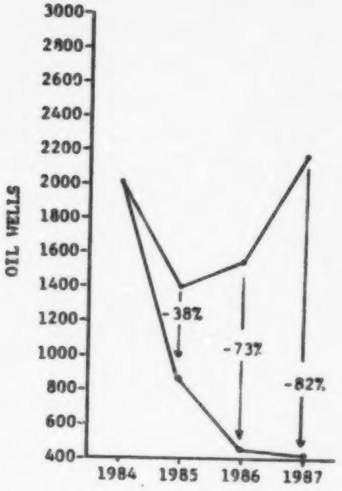

Chart 1. Impact on the Drilling of New Oil Wells

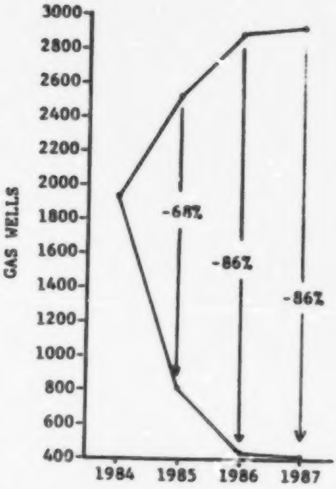

Chart 2. Impact on the Drilling of New Gas Wells

PENNSYLVANIA OIL & GAS WELL DRILLING OPERATORS USING 100% INTERNAL CAPITAL

TABLE III

	YEAR	NUMBER OF WELLS DRILLED*			CAPITAL INVESTED		
		OIL (%)	GAS (%)	TOTAL (%)	OIL	GAS	TOTAL
BUSINESS AS USUAL	1984	846 (42)	149 (18)	995 (35)	$47,248,254	$36,134,884	$83,383,138
	1985	427 (31)	193 (8)	620 (16)	$23,847,523	$46,805,588	$70,653,111
	1986	428 (27)	194 (7)	622 (14)	$23,903,372	$47,048,104	$70,951,476
	1987	449 (21)	196 (7)	645 (13)	$25,076,201	$47,533,136	$72,609,337
	TOTAL	1304 (25.3)	583 (6.98)	1887 (14)	$72,827,096	$141,386,830	$214,213,930
FLAT TAX	1985	404 (47)	189 (24)	593 (36)	$22,562,996	$45,835,524	$68,398,520
	1986	233 (55)	172 (42)	405 (48)	$13,012,817	$41,712,752	$54,167,079
	1987	214 (53)	175 (44)	389 (48)	$11,951,686	$42,440,300	$53,391,986
	TOTAL	851 (50.2)	536 (33.2)	1387 (41.9)	$47,527,499	$129,988,580	$176,957,585

* (%) Represents share of totals reported

EFFECT OF FLAT TAX ON 100% INTERNAL FINANCING

TABLE IV

YEAR	NUMBER OF WELLS DRILLED			CAPITAL INVESTED		
	OIL	GAS	TOTAL	$ OIL	$ GAS	$ TOTAL
1985	-23 (-5.4)	-4 (-2.1)	-27 (-4.4)	-1,284,527	-970,064	-2,254,591
1986	-195 (-45.5)	-22 (-11.3)	-217 (-34.8)	-10,890,555	-5,335,352	-16,225,907
1987	-235 (-52.3)	-21 (-10.7)	-256 (-39.7)	-13,124,515	-5,092,836	-18,217,351
TOTAL	-453 (-34.7)	-47 (-8.1)	-500 (-26.5)	-25,299,597	-11,398,252	-36,697,849

PENNSYLVANIA OIL & GAS WELL DRILLING OPERATORS USING OUTSIDE CAPITAL

TABLE V

	YEAR	NUMBER OF WELLS DRILLED (%)			CAPITAL INVESTED		
		OIL (%)	GAS (%)	TOTAL (%)	OIL	GAS	TOTAL
BUSINESS AS USUAL	1984	1169 (58)	692 (82)	1861 (65)	$65,287,481	$167,821,070	$233,108,551
	1985	973 (69)	2321 (92)	3294 (84)	$54,341,077	$562,879,640	$617,220,717
	1986	1128 (73)	2720 (93)	3848 (86)	$62,997,672	$659,643,520	$722,641,192
	1987	1738 (79)	2728 (93)	4466 (87)	$99,578,767	$661,583,650	$761,162,417
	TOTAL	3839 (76)	7769 (93)	11608 (86)	$216,917,520	$1,884,106,800	$2,101,024,132
FLAT TAX	1985	458 (53)	612 (76)	1070 (64)	$25,578,842	$148,419,790	$173,998,632
	1986	193 (45)	240 (58)	433 (52)	$10,778,857	$58,203,840	$68,982,697
	1987	191 (47)	227 (56)	418 (52)	$10,667,159	$55,051,132	$65,718,291
	TOTAL	842 (50)	1079 (67)	1921 (58)	$47,024,858	$261,674,760	$308,699,61

CAPITAL SHARES LOST DUE TO FLAT TAX

TABLE VI

WELL TYPE	YEAR	$ LOST	% OUTSIDE	$ OUTSIDE	$ INSIDE	REMARKS
OIL	1985	$28,762,235	72	$28,762,235	-0-	$10.4 million outside still available
	1986	$52,218,815	68	$42,838,417	$9,380,398	
	1987	$88,911,608	66	$65,721,986	$23,189,622	
	TOTAL	$169,892,267		$137,322,640	$32,570,020	100% Outside capital lost
GAS	1985	$414,459,850	72	$405,273,340	$9,186,309	
	1986	$601,439,680	68	$448,557,590	$132,882,090	
	1987	$606,532,520	66	$436,645,210	$169,887,310	
	TOTAL	$1,622,432,100		$1,290,476,100	$331,955,900	

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PENNSYLVANIA OIL AND GAS WELL DRILLING
SHARES OF INSIDE AND OUTSIDE CAPITAL

TABLE VII

		OIL		GAS	
		$ OUTSIDE	$ INSIDE	$ OUTSIDE	$ INSIDE
BUSINESS AS USUAL	1985	$39,125,575	$39,063,025 (49%)	$405,273,340	$204,411,880 (34%)
	1986	$42,838,614	$44,062,626 (51%)	$448,557,590	$258,134,030 (36%)
	1987	$64,063,269	$58,078,491 (48%)	$463,678,210	$272,488,570 (38%)
	TOTAL	$146,027,726	$141,204,140	$1,290,509,100	$735,034,480
FLAT TAX	1985	$10,363,340	$37,778,498 (78%)	-0-	$194,255,320
	1986	-0-	$23,791,674	-0-	$99,916,590
	1987	-0-	$22,618,845	-0-	$97,491,432
	TOTAL	$10,363,340	$84,189,017	-0-	$391,663,340
		Δ %		Δ %	
	1985	-73.5	-3.3	-100.0	-4.9%
	1986	-100.0	-46.0	-100.0	-61.3%
	1987	-100.0	-61.1	-100.0	-64.2%
	TOTAL	-92.9	-40.4	-100.0	-46.7%

The EFFECT of the TREASURY'S "FLAT TAX" PROPOSAL on CAPITAL FORMATION & INVESTMENT in the PA OIL & GAS INDUSTRY

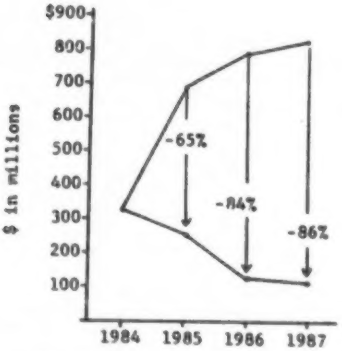

Chart 3. Impact on Aggregate Capital Investment

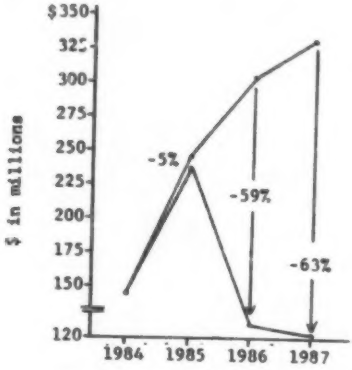

Chart 4. Potential Impact of Reduced Well Drilling on Internal Capitalization by Oil and Gas Businesses

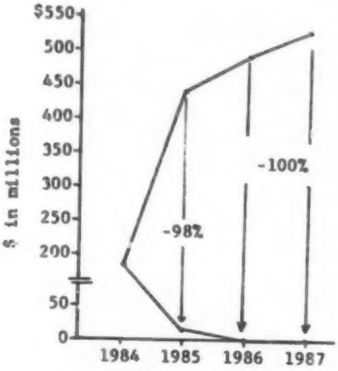

Chart 5. Potential Impact of Reduced Well Drilling on External Capitalization Generated by Oil & Gas Businesses

The EFFECT of the TREASURY'S "FLAT TAX" PROPOSAL on the FINANCING of NEW OIL & GAS WELL DRILLING

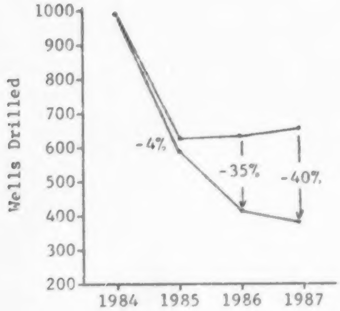

Chart 6. Impact on Number of New Wells Drilled on 100% Internal Capitalization

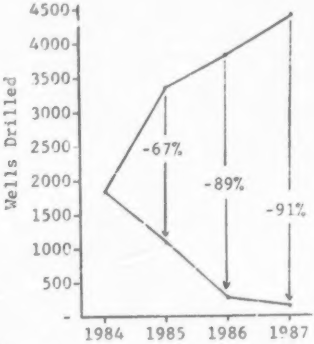

Chart 7. Impact on Number of New Wells Drilled with Heavy Reliance on Outside Sources of Capital

EXHIBIT A

SUMMARY OF TREASURY PROPOSALS

1. Percentage depletion would be repealed, effective 1/1/86 for existing and future production.

2. Expensing of intangible drilling costs would be repealed, effective 1/1/86.

In place of percentage depletion and current expensing of IDC, there would be a system of "cost depletion". The term "cost depletion" is misleading since there is no recognition of the exhausting of non-renewable resources. Rather, it amounts to a straight line amortization of all intangible expenditures attributable to a property over the producing life of the property. The basis in the property would be indexed for inflation.

3. Dry hole costs would be written off only at the time a property is abandoned. The cost of dry holes drilled on leases retained for further exploration or development drilling would have to be carried forward until such time as there is production from the property, in which event dry hole costs would be included in the "cost depletion" computation, or until the property is abandoned without production. This would be effective 1/1/86.

4. Expensing of qualified tertiary injectant expenses would be repealed, effective 1/1/86.

5. The investment tax credit would be repealed, effective 1/1/86.

6. Also, the accelerated cost recovery system, or ACRS, would be repealed, effective 1/1/86.

In place of the investment tax credit and ACRS would be depreciation over the "economic life" of assets, which basis indexed for inflation, field equipment assigned 12 year life and 18 percent depreciation rate.

7. "At-risk" rules would be retained and applied to all investments.

8. Partnerships with 35 or more limited partners would be taxed as corporations. So-called "S" corporations, limited partnerships with 35 or fewer limited partners and general partnerships will continue to be afforded pass-through treatment. Affected partnerships already in existence prior to 1985 would not become subject to this until 1/1/90.

9. The individual alternative minimum tax and corporate minimum tax would be retained until 1/1/90.

10. The proposal would restrict the use of cash method accounting to businesses that do not use the accrual method for financial accounting purposes, carry no inventories and have annual gross receipts of less than $5 million.

11. To assure uniform treatment of all multi-period production activities (i.e., oil and gas production), it would develop comprehensive rules for capitalization of indirect costs such as interest.

Exhibit A
Page Two

12. the 33-month phase-out of the Windfall Profit Tax would commence January 1, 1988.

13. Corporations could deduct from taxable income one-half of the dividends paid from income subject to tax but not dividends paid from income that had not been subject to corporate law. This would be phased in over several years.

"Exhibit B"

February 26, 1985

TO: All Members of the Pennsylvania Oil
and Gas Association

FROM: The Tax Committee

RE: The So-Called "Flat Tax" Proposal

In November of 1984, the U.S. Treasury introduced its report on tax simplification and reform. The report contains a number of propsals which could seriously and severely affect the economic future of many producers in the state of Pennsylvania. Sepcific Treasury proposals include:

1. The repeal of provisions for expensing of intangible drilling costs for producers in the year they occur, and a requirement that those costs be capitalized and amortized over the life of the property.
2. The disallowance of tax deductions for dry hole costs until the property is abandoned with dry hole costs on development wells being amortized over the life of the whole property.
3. The repeal of percentage depletion.
4. The repeal of the investment tax credit.
5. Capitalization of indirect costs; eg., interest.

POGAM needs to know how this proposal will affect you. Please take a few minutes to fill out and return this questionnaire. Make sure you answer all the questions with your best estimates. The questionnaire is anonymous and confidential. We will use it to let our Congressmen and Senators know how the tax proposal will affect you. Return this questionnaire to POGAM no later than Friday, March 15, 1985.

DON'T DELAY - RESPOND TODAY

PENNSYLVANIA OIL AND GAS ASSOCIATION
P.O. Box 180 • Bradford, Pennsylvania 16701 • (814) 362-6722

PENNSYLVANIA OIL & GAS ASSOCIATION SURVEY ON THE EFFECT OF THE FLAT TAX PROPOSAL

Current tax proposals before Congress may have a devastating effect on the oil and gas industry nationwide. We need to know how it would affect Pennsylvania producers.

1. How many wells did you drill in 1984? Oil _______ Gas _______

2. What was the average depth and cost of the wells you drilled in 1984?

Oil Wells: Average Depth: _______ feet Average Cost: _______

Gas Wells: Average Depth: _______ feet Average Cost: _______

3. If the tax laws remain unchanged, how many wells do you plan to drill in the next few years?

	1985	1986	1987
OIL	_______	_______	_______
GAS	_______	_______	_______

4. Will the wells you plan to drill between now and 1987 be the same average depth?

YES _______ NO _______

5. In 1984, what percentage of your drilling funds came:

From Your Company? _______% From Outside Investors? _______%

6. If the tax laws remain unchanged, how much of your drilling funds will come from your company and from your investors?

	1985	1986	1987
From Your Company	_______%	_______%	_______%
From Investors	_______%	_______%	_______%

7. If the Treasury's tax proposals become law January 1, 1986, how many wells would you drill?

	1985	1986	1987
OIL	_______	_______	_______
GAS	_______	_______	_______

8. If the Treasury's tax proposals become law January 1, 1986, company drilling funds would change by what percent?

1985 _______% 1986 _______% 1987 _______%

9. Investor drilling funds would change by what percent?

1985 _______% 1986 _______% 1987 _______%